

LANSING CITY PLAN

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A REPORT UPON
THE COMPREHENSIVE CITY PLAN
LANSING, MICHIGAN

CITY PLAN
COMMISSION

HARLAND BARTHOLOMEW AND ASSOCIATES
CITY PLANNING CONSULTANTS
ST. LOUIS, MISSOURI

NOVEMBER, 1938

CITY OF LANSING, MICHIGAN

MAX A. TEMPLETON, Mayor



CITY COUNCIL

1st Ward

Hazen C. Rutter

Thomas Toy

5th Ward

Jerry Springsteen

Fred L. Kircher

2nd Ward

Fred L. Radford

Ralph W. Crego

6th Ward

Floyd E. Shaw

Frank E. Pease

3rd Ward

Leo J. Smith

O. R. Starkweather

7th Ward

Rina Dell

Chas. J. Larkin

4th Ward

E. Guy Campbell

Charles W. Reck, Sr.

8th Ward

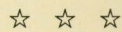
Edson Bassett

Arthur E. Stoppel



CITY PLANNING COMMITTEE

Aldermen Stoppel, Toy, Radford, Starkweather, Campbell, Springsteen, Shaw and Larkin.



ON JUNE third, 1935, the City Council passed a resolution authorizing Mayor Max A. Templeton to appoint a City Plan Commission. The Mayor appointed the following citizens: Messrs. Harry L. Conrad, Kenneth C. Black, H. Lee Bancroft, Otto E. Eckert and Samuel C. Jacka.

The City entered into a contract with Harland Bartholomew, City Plan Engineer of Saint Louis, Missouri, on December thirty-first, 1936, for a comprehensive City Plan for Lansing. Mr. Bartholomew had prepared the original City Plan Report in 1921. The State of Michigan cooperated by retaining Mr. Bartholomew to prepare a master plan for Capitol Building development which has been adopted as part of the City Plan and is incorporated herein.

The Commission was constantly in consultation with the City Planner.

CITY PLAN COMMISSION

Max A. Templeton.....Mayor

Harry L. Conrad.....Chairman

Registered Civil Engineer

Kenneth C. Black.....Secretary

Registered Architect

H. Lee Bancroft.....Superintendent of Parks, Forestry and Recreation

Otto E. Eckert.....General Manager Board of Water and Electric Light Commissioners

Registered Civil Engineer

Samuel C. Jacka.....City Engineer

Registered Civil Engineer

NEARLY two decades have elapsed since the original City Plan was drawn. Many changes and developments have taken place during that time and the Plan has been in constant use during this growth of the City. However, the industrial, commercial and institutional growth of Lansing has been so great that it was considered necessary to bring the Plan up-to-date and make it consistent with modern developments. This has been done and it is this new Comprehensive Plan that we herein present.

To meet the growing demands of Lansing will require the constant attention of a City Plan Commission and it is therefore recommended that the City Council adopt an ordinance providing for the appointment of such a Commission under the State Planning Act.

The State of Michigan has fully cooperated financially and otherwise, in making this report possible for which the City Plan Commission wishes to express their appreciation. The greatest benefit can be had from the Plan only by the fullest cooperation between the State and City governments. By following the development of State buildings as suggested herein Lansing will be a Capital of which the State will be proud and in which its citizens will be glad to live.

A comprehensive plan must lay down broad principles that will guide, but not hamper, a growing city. The following pages offer carefully worked out suggestions along these lines which we recommend be adhered to as closely as possible.

Max Templetton Mayor

Harry A. Conrad Chairman

Kenneth C. Black

H. Lee Bancroft

Otto E. Eckert

S. C. Jacka

City Plan Commission.



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Letter of Transmittal

Saint Louis, Missouri
November, 1937

City Plan Commission
Lansing, Michigan

Gentlemen:

We are pleased to submit herewith our report on the comprehensive city plan for Lansing. Past growth and present conditions are portrayed by various maps and tables, and these are supplemented by recommendations for the future development of this city.

The many improvements that have been made in accordance with the city plan of 1921 clearly indicate the benefits that can be obtained from a definite planning program. Cities are not static. Replacements or repairs are constantly being made and new facilities are consistently being developed. The comprehensive city plan should be the basis for all readjustments of existing facilities, while the development of new facilities can be made in a manner that will insure efficiency and economy if the plan is used.

The objective of this city plan is to provide for the most satisfactory living and working conditions for all citizens. To this end it is important that as many citizens of Lansing as possible become acquainted with this plan, in order that they may give support to wisely conceived public improvements. A well informed group of citizens will be the strongest bulwark against thoughtless or unwise planning of public improvements. Lansing is now a most attractive and desirable city. By following a city plan such as proposed herewith, the city can continue to grow in such a way as to be still more attractive, and its residential and commercial areas more efficiently arranged and developed. Public economy may thus be promoted by avoiding the waste of haphazard growth.

The work involved in the preparation of the comprehensive city plan has necessitated many contacts and the collection of much data from city, county, state and national governmental agencies, from various organizations, and from numerous individual citizens. All requests for information have met with courteous and prompt response, and we wish to take this opportunity to express our sincere appreciation for this excellent cooperation.

Respectfully submitted,

HARLAND BARTHOLOMEW AND ASSOCIATES

By

Harland Bartholomew,

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Introduction

OBJECTIVES AND SCOPE OF PLANNING

THE daily life of each person in the city is concerned with some type of planning. We plan our homes, our factories, and even our various fields of endeavor. Groups of individuals plan successful projects, such as clubs, churches, and neighborhood or property owners organizations. Similar foresight is seldom used, however, in the development of our larger home—the city.

A city is a very complex organization involving the relationship of many residential, business and industrial buildings with the facilities necessary to utilize these structures, and with educational, recreational and protective developments essential to community life. A plan is imperative to coordinate these complex relationships and to eliminate waste and inefficiency.

The city is the result of the activities of individuals, of groups of individuals (such as private corporations and semi-public organizations), and of public officials. The city plan is the base upon which all groups agree and unite to build a sound city. Such a plan, consistently followed, will eliminate hodgepodge development, ill-advised and inadequate facilities, and depreciated property values.

The Elements of the City Plan

The city is composed of man-made improvements. These include numerous types of private structures and public buildings, streets, transportation facilities, schools, parks, and utilities of various kinds. The character and arrangement of these determine whether living conditions—the major interest of all citizens—are good, fair or bad.

Occasionally a plan is prepared for one or more of these physical elements, as, for example, a public school building program. Seldom, however, do the plans for a single facility, such as schools, or streets or parks, fully comprehend the probable development of other related facilities. Neither are such plans, if available at all, based upon the future growth and development of the entire city. Most of our planning is

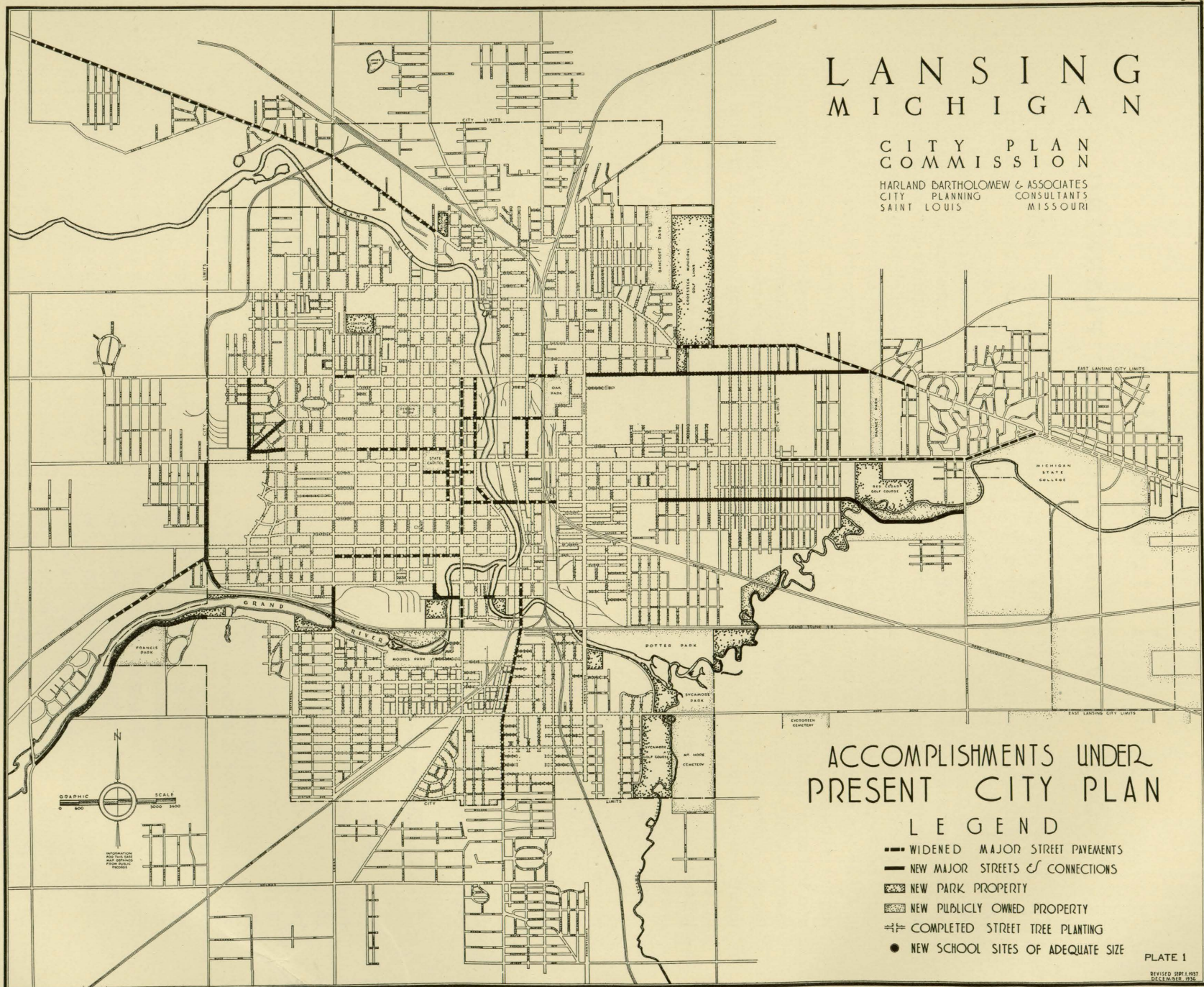
individualistic and short sighted. Our natural planning instinct must be extended into the larger realm of the entire city.

A city plan is prepared by following a series of logical steps. First, the size of the existing city and its probable ultimate proportions must be determined. How much population can be expected in the future and how much land area will this population require? Second, the general arrangement of the city must be determined, i.e., location and extent of each of the residential, commercial, and industrial districts. Third, decisions must be made regarding the location, character and size of the several physical elements, such as schools, parks, streets and sewers necessary to serve the future city. Finally, broad general plans, various detailed plans, and certain regulatory measures must be prepared. Each step involves compilation of data, determination of facts and trends, and the making of decisions. The final plan shows a coordinated scheme with each element in proper relation to all other elements.

The Factor of Scale in Planning the City. Earlier city plans overlooked the factor of scale or size of the city. Plans were based on an almost unlimited increase of population. Emphasis was placed upon provisions for new growth rather than upon the gradual readjustment of existing development. Experience has indicated, however, that there are limits to population increase and therefore to the size of the city.

Estimates must be made of the probable future population that can be expected within the city. Studies in several cities have provided statistics that will enable the determination of the amount of urban area necessary to accommodate this future population. Past trends and existing development will indicate how this future area will be generally divided into residential, commercial and industrial districts.

These studies regarding the future size of the city will provide the general scale for the plan. By determining the distribution and density of the future population, a plan for public improvements can be made with confidence and ac-



curacy, since improvements that would become inadequate or would be unnecessarily large can be avoided.

If the city plan is in scale with future needs of the community, public improvements can be easily planned in the order of their importance and public works programs for five or ten year periods can be undertaken within the normal limits of funds available for capital improvement. Few private corporations would expend large sums of money for permanent capital improvements without some reference to long term plans and programs. Obviously, a city should exercise the same foresight.

How the City Plan Should Function

To receive the greatest benefits from planning, the city must have some control over the various individuals and agencies that build the city.

An Official Plan. The primary function of a plan commission is to make and adopt the city plan. Proposed improvements should be submitted to the city plan commission for consideration before any final action is taken. If an improvement conforms to the proposals of the plan, it can be approved and work started immediately. If it does not conform to the plan, the commission can suggest changes and revisions, or it can recommend that no action be taken. Any such changes and revisions would be studied by the officials in charge of the project. If, however, the public officials still believed they should proceed according to their original proposals, they could do so by something more than a mere majority vote. This procedure does not give any legislative authority to the commission, but it does provide for careful consideration of the official plan of the city.

Michigan has a modern city plan enabling act adopted in 1931. Under the provisions of this act the city of Lansing should create an official planning commission, adopt an official city plan, and follow a logical method of city development.

Citizen Support. Maximum benefits are insured by wide public understanding and support of the plan. If it is generally realized that the plan will benefit each individual, such support will be assured. Newspaper publicity, public addresses, pamphlets, and wide distribution of a printed report describing the city plan are methods of securing this interest and support. A large citizens' organization, composed of repre-

sentatives of improvement associations and other groups, whose primary purpose is to support the execution of the plan, has been found effective. Children should also become familiar with the plan. Every school in Lansing should have a course concerning the planning of the city. This will insure future citizens being familiar with the city's problems and with methods of solving them.

The Present City Plan

Lansing has had a city plan since 1922. Many public improvements have been made in conformity with this earlier plan, that have been beneficial to all citizens. Plate Number 1 graphically shows the location, type, and prominent position of some of the more outstanding improvements. These improvements comprise, among others, 6.9 miles of new streets (including the extension of Kalamazoo, Elm, Saginaw and Logan Streets); 300 acres of new parks (including Groesbeck and Red Cedar Golf Courses, additions to Potter Park, Scott Field, and improvements of the river banks); two new school sites of adequate area; nearly 11,000 street trees have been planted and maintained since 1930; and a decided improvement has been made in the design of subdivisions. All this has been done in conformity with, or as a result of, the city plan of 1922.

Lansing also has a zoning ordinance that was adopted in 1927. Much undesirable development has been excluded from residential districts by the enforcement of the zoning regulations. At the same time, the city has experienced a large commercial and industrial development which indicates that zoning does not retard desirable growth but merely guides it along proper lines. While undesirable modifications and variations have been made, it is evident that the city would have a much greater amount of scattered and undesirable development if there had been no zoning regulations.

In general, the city plan has assured full utilization from the improvements made in accordance therewith, has tended to stabilize property values, improve the health and welfare of the citizens, and also provide for both orderliness and improved appearance. The officials and boards responsible for thus preserving the character of the present city are to be congratulated on their wisdom and foresight.



WEEKLY AVERAGE EMPLOYMENT IN THE 18 LARGER INDUSTRIES*

LANSING, MICHIGAN

CITY PLAN
COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
ST. LOUIS, MISSOURI

* DOES NOT INCLUDE OFFICE OR CLERICAL HELP
DATA FROM LANSING CHAMBER OF COMMERCE

PLATE 2
AUGUST 1937

CHAPTER ONE

Population

INTRODUCTION

A CITY PLAN contains recommendations regarding proposed improvements that will serve existing and future populations. Consequently, an analysis of the amount and distribution of population should be the first step in the planning program. It is essential to determine how many persons will be in the City of Lansing and its environs during the next thirty years and where they will be located. Such data provides the only sound basis for determining future needs. Any estimate regarding the amount and distribution of future population must consider several factors. The amount of population will be controlled by national trends (population increase for the United States), and by local advantages, (desirable living conditions and opportunities for employment). The conditions that will primarily affect the distribution of future population are physical (both natural and man-made) characteristics of the site, adaptability of land for various urban uses, and character of subdivision development. An analysis of these influences together with a study of population trends in Lansing and the surrounding area during past decades, follows.

Present Growth

The growth of Lansing and its environs has been influenced by the following factors:

1. It is the capital of a great state that has experienced a rapid population growth. Many state employees live in the city and thousands of persons visit the city annually to transact official business.
2. It is served by important railroads and highways.
3. Several large industries have located here for purposes of manufacture and distribution.
4. The Michigan State College contributes to a diversification of interests and activities.

Comparative importance of the several types of employment resulting from the above influences is indicated in Table 1.

Factors Influencing Future Growth

Employment. The manufacturing and mechanical industries absorb nearly one-half of the total employed persons in Lansing. This classification includes persons employed in construction as well as in industry. The trend of employment in the eighteen larger industries during the past several years is shown on the accompanying chart, Plate 2. These eighteen industries employ a large majority of the persons engaged in manufacturing activities. A large proportion of the total employment is represented by three or four industries that manufacture autos and automotive equipment and this type of industry throughout the country is probably approaching its capacity for employment and it is doubtful that its future growth will ever be comparable to that of the recent past.

With the exception of the depression period, the average annual employment in the eighteen industries has been comparatively uniform. Barring the closing or removal of one or more of the larger plants, the present ratio of industrial

Table Number 1.
CLASSIFICATION OF THE GAINFULLY EMPLOYED
1930

Source of Employment	Male	Female	Total	Percent of Total Gainfully employed
Mfg. and Mech. Industries	14,367	902	15,269	44.6
Trades	4,098	873	4,971	14.5
Clerical Occupations	1,969	2,914	4,883	14.2
Domestic and Personal Service	1,135	2,426	3,561	10.4
Professional Service	1,430	1,157	2,587	7.6
Transportation and Communication	1,826	180	2,006	5.9
Public Service	713	15	728	2.1
Agr., Forestry, Mining and Misc.	242	6	248	0.7
Totals	25,780	8,473	34,253	100.0

employment in Lansing will continue and a large percentage of the wage earners will be employed by industry. The planning program should facilitate industrial development and there is no apparent reason why Lansing cannot continue to attract new industries.

Slightly more than one-half of those employed are engaged in occupations other than industry. This diversification of employment minimizes dangers present in a town containing one single type of industry.

The State Capital. Lansing is the Capital of a state whose governmental functions are continually increasing, and a large number of state employees will always be needed. There are now about 2,700 employees in Lansing. Large numbers of visitors are attracted to the city on state or other official business, and as sight-seers. These will stimulate business activity, particularly retail trade.

As the State Capital, Lansing has an additional responsibility that is not shared by other cities in the state. Citizens of the entire state have an interest in the Capital City. It should be so well planned and so attractive as to be a source of pride and an example to other cities throughout the state.

Michigan State College. A third factor that will influence future growth is Michigan State College. Enrollment has increased 100 per cent in the last ten years. While the college is located in East Lansing, the majority of the estimated \$5,000,000 annual expenditures (by faculty, students and visitors) are made directly or indirectly in Lansing. The anticipated gradual increase in such expenditures will continue to be an important influence.

Summarizing, industrial development will continue to play a major part in the economic

life of the city; considerable increase in non-industrial employment can be expected and the population will grow steadily although not as rapidly as in the past.

Past Growth of Population

Lansing has grown rapidly, the population increasing from 1,229 persons in 1850 to 83,500 persons in 1936. The rate of growth in the city has been more rapid than the rate of growth in the state or county. See Table 2.

State Trends. The rate of growth in the State of Michigan during the past two decades was respectively 32.0 per cent (1920-1930) and 30.5 per cent (1910-1920). The rate of increase in the United States during these decades was only 16.1 per cent and 14.9 per cent. Michigan's rate of growth was exceeded, between 1920 and 1930, by only two states, California and Florida. The automobile industry has been a major factor in this rapid growth. The future growth of this industry will probably be less rapid. The state will continue to grow, but it probably will not represent the same percentage of the national population increase that it has during the past twenty years.

County Trends. Since 1900, Ingham County has grown at a faster rate than the state. Between 1920 and 1930, only five counties in the state (Genesee, Kent, Macomb, Oakland and Wayne) had a greater numerical increase in population than Ingham County. Under normal conditions, Ingham County will receive a considerable portion of any population growth occurring within the state.

City Trends. The percentage of population increase within the City of Lansing has, with one exception, been larger than either the county or

Table Number 2.
POPULATION GROWTH—1880 to 1930

Year	UNITED STATES		STATE OF MICHIGAN		INGHAM COUNTY		CITY OF LANSING	
	Population	Percent Increase	Population	Percent Increase	Population	Percent Increase	Population	Percent Increase
1880	50,155,783	30.1	1,636,937	38.2	30,045	34.9	8,319	58.7
1890	62,947,714	25.5	2,093,890	27.9	37,660	25.3	13,102	57.5
1900	75,994,575	20.7	2,420,982	15.6	39,818	5.7	16,485	25.8
1910	91,972,266	21.0	2,810,173	16.1	53,310	33.9	31,229	89.4
1920	105,710,630	14.9	3,668,412	30.5	81,554	52.9	57,327	83.6
1930	122,775,046	16.1	4,842,325	32.0	116,587	42.9	78,397	36.8

DATA FROM THE REPORT OF THE 1930 U. S. CENSUS.

POPULATION GROWTH IN TOWNSHIPS 1900 - 1930

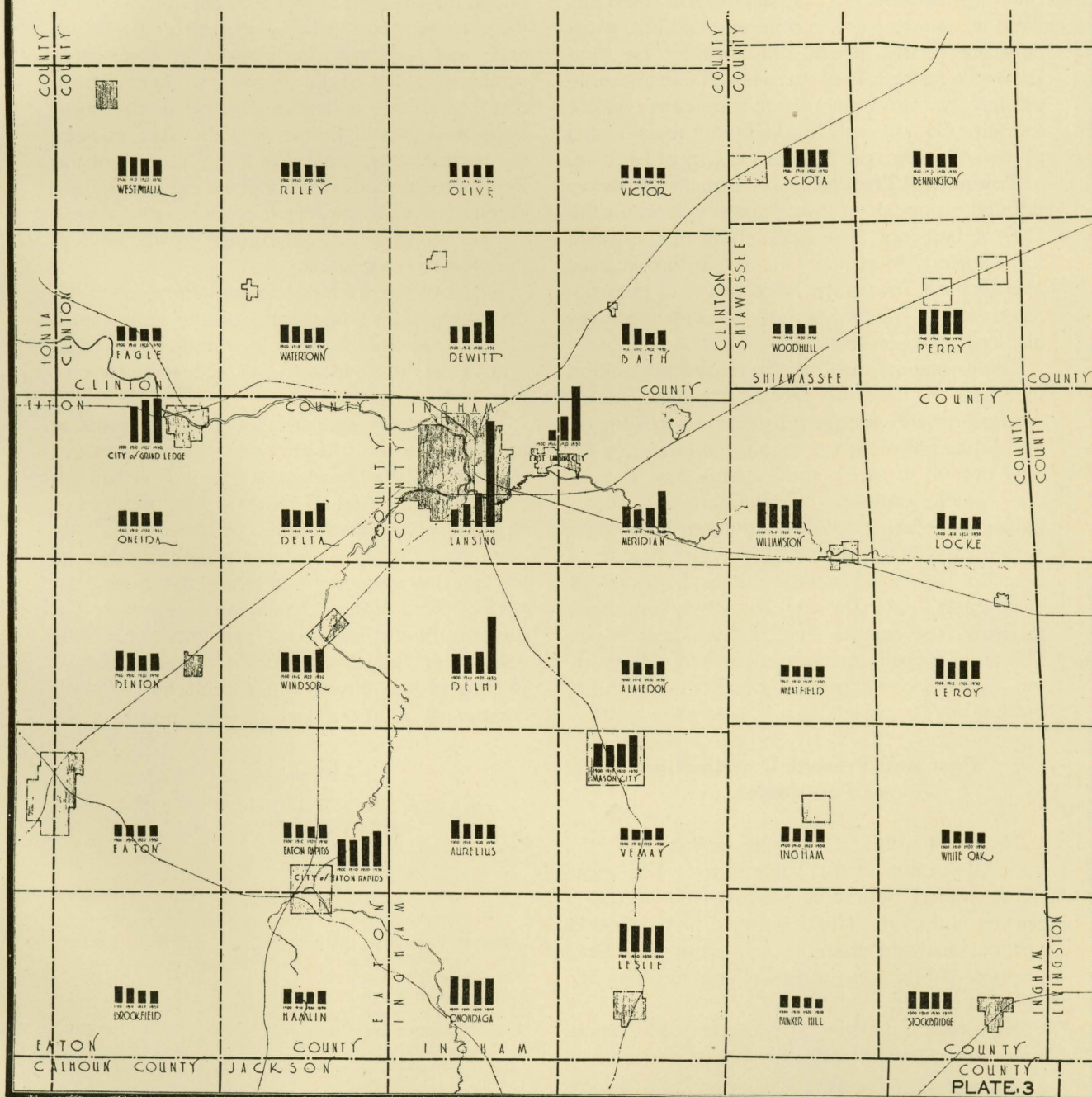
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CITY PLAN COMMISSION

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CITY PLANNING CONSULTANTS
ST. LOUIS MISSOURI

SCALE OF
POPULATION
GRAPHS

3000
2000
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GRAPHIC SCALE
0 1 2 3 4 5 6
M I L E S



DECEMBER, 1936.

state. The rapid growth between 1900 and 1920 slackened between 1920 and 1930. Between 1920 and 1930 the numerical increase was less than the increase in the preceding decade and, for the first time since 1870, the rate of increase in the city was less than in the county.

Several factors have brought about this recent trend. In general, as a city increases in size, its rate of growth decreases. In larger cities much new growth occurs beyond the city limits. Lansing is now experiencing these trends. The rate of growth during the past decade (36.8 per cent) is, nevertheless, comparatively high, since only six of the larger cities within the state showed a faster rate of increase. A considerable portion of any population increase within Ingham County will undoubtedly be located partly within and partly near the City of Lansing.

Township Trends. Plate Number 3 shows population trends in townships surrounding the City of Lansing. (The population on this plate for Lansing, Meridian, Vevay, Eaton Rapids, and Oneida Townships is exclusive of incorporated cities.) The trends in the smaller cities are also indicated on the plate.

The townships showing the largest population increase are near the City of Lansing. The increased growth is especially marked in Lansing and Delhi Townships, indicating a tendency for new growth to locate south of the city. During the decade between 1920 and 1930, Delhi, Lansing, Meridian and DeWitt Townships had a larger percentage of increase than the city of Lansing. The rate of increase in East Lansing was also higher than in the city. The city is beginning to grow less rapidly than surrounding areas. The outer growth must be integrated with existing urban development rather than indiscriminately scattered.

Past and Present Distribution of Population

The population of Lansing within the city limits is rather evenly distributed. The most thinly settled section is the extreme northern portion of the city. The population has extended further eastward than in any other direction because of Michigan State College and the City of East Lansing.

The present pattern of population distribution is generally satisfactory. It is not so dense as to

result in congestion, yet it is not so widely scattered that it requires an excessive amount of public improvements, such as streets, sewers, water lines, schools and other similar facilities.

Trends in Distribution. Plate Number 4 shows the distribution of population in 1920 and in 1937, the plan for 1937 also showing general distribution in a portion of the area surrounding the city limits. A comparison of the two plans reveals important conditions and trends.

The northern section of the city has experienced the smallest increase in population, while the largest increase has occurred in the south and east sections. Population is also more scattered in the north. There is a very uniform distribution in residential districts in the west. However, growth has been less rapid beyond the western city limits due to the barrier of the Belt Line Railroad. Restriction of industrial area, elimination of grade crossings, and development of park facilities will encourage growth beyond the western city limits.

Most of the population immediately outside of the city limits is found in the east and the south. Growth has been especially rapid south of the city. Very little growth has occurred beyond the northern city limits.

Further data regarding population trends is indicated by Plate Number 5 which shows the location of new residences erected within the city during the past 10 years. A small number of two-family dwellings and apartment buildings have been erected within the central part of the city, but even many of these have been converted from large single-family homes. In general, there has been practically no new residential construction within the older central section of the city, yet many of the existing homes are quite old and are verging upon ob-

Table Number 3.

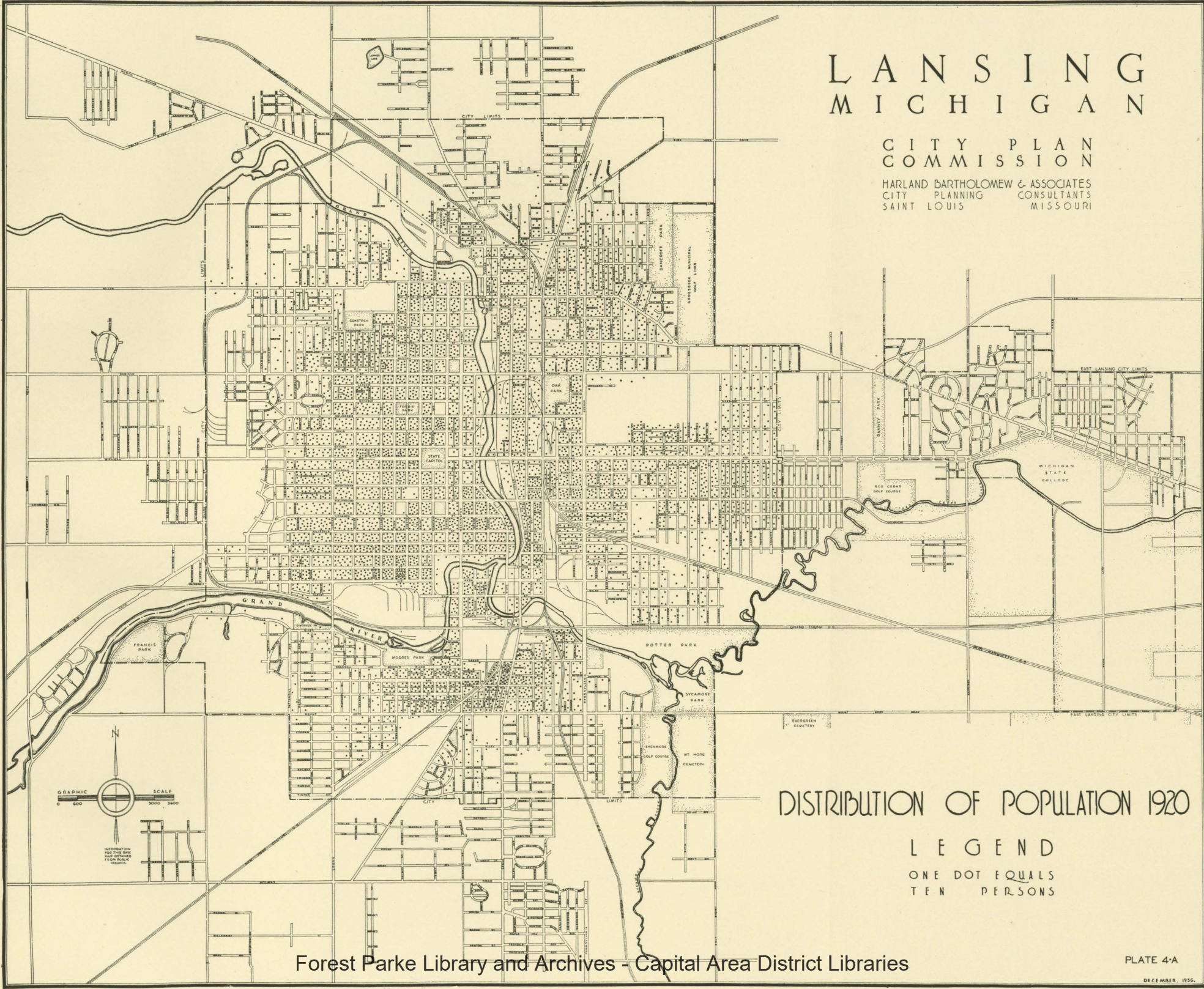
CLASSIFICATION OF POPULATION DENSITIES IN EACH BLOCK

Density	Number of Blocks	
	1920	1930
Less than 10 persons per acre	495	185
10 to 19 persons per acre	117	221
20 to 29 persons per acre	139	289
30 to 39 persons per acre	157	222
40 to 49 persons per acre	75	82
50 to 59 persons per acre	25	16
60 to 69 persons per acre	9	5

LANSING MICHIGAN

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DISTRIBUTION OF POPULATION 1920

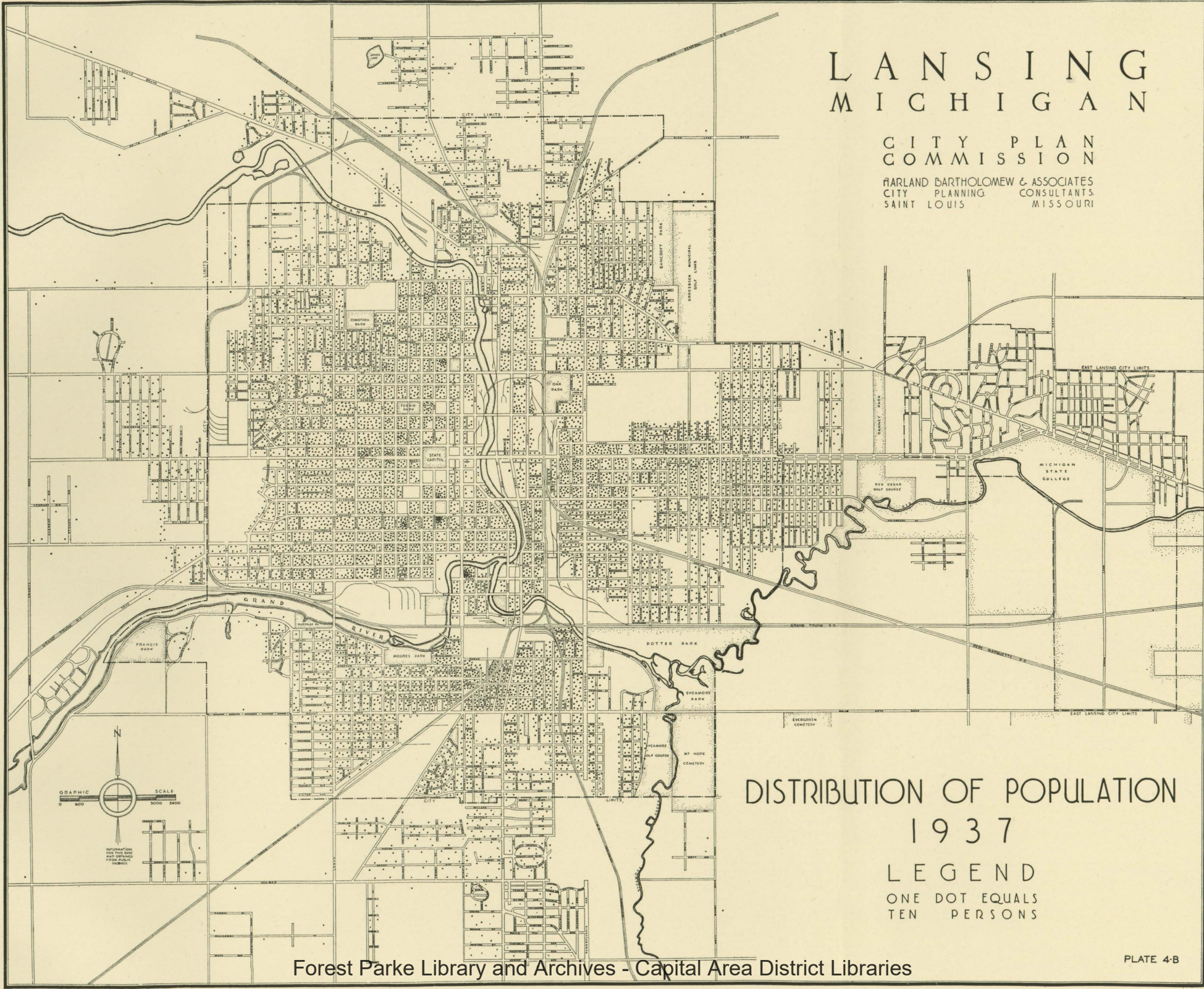
LEGEND

ONE DOT EQUALS
TEN PERSONS

LANSING MICHIGAN

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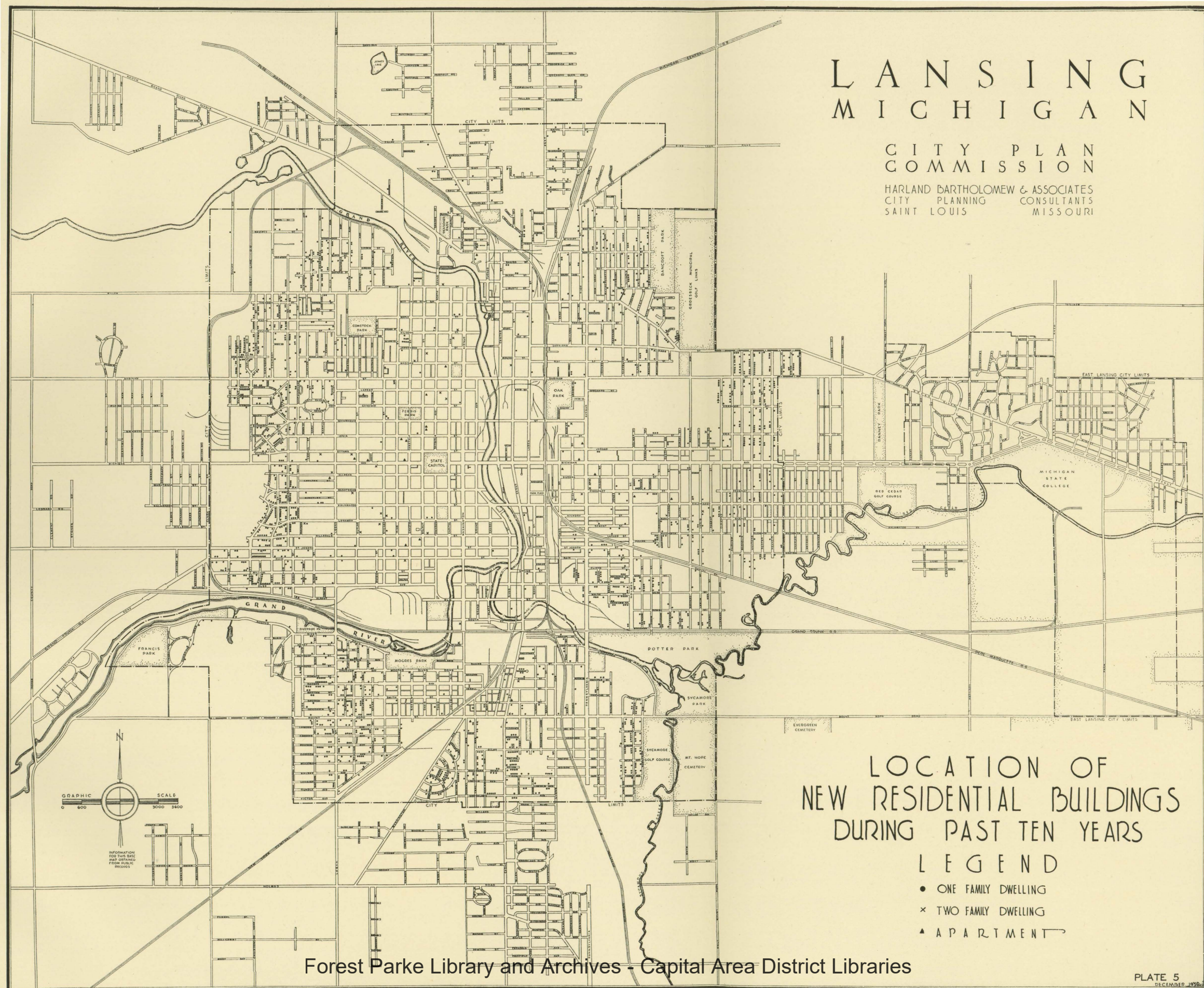
DISTRIBUTION OF POPULATION
1937

LEGEND
ONE DOT EQUALS
TEN PERSONS

LAN S I N G M I C H I G A N

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LOCATION OF NEW RESIDENTIAL BUILDINGS DURING PAST TEN YEARS

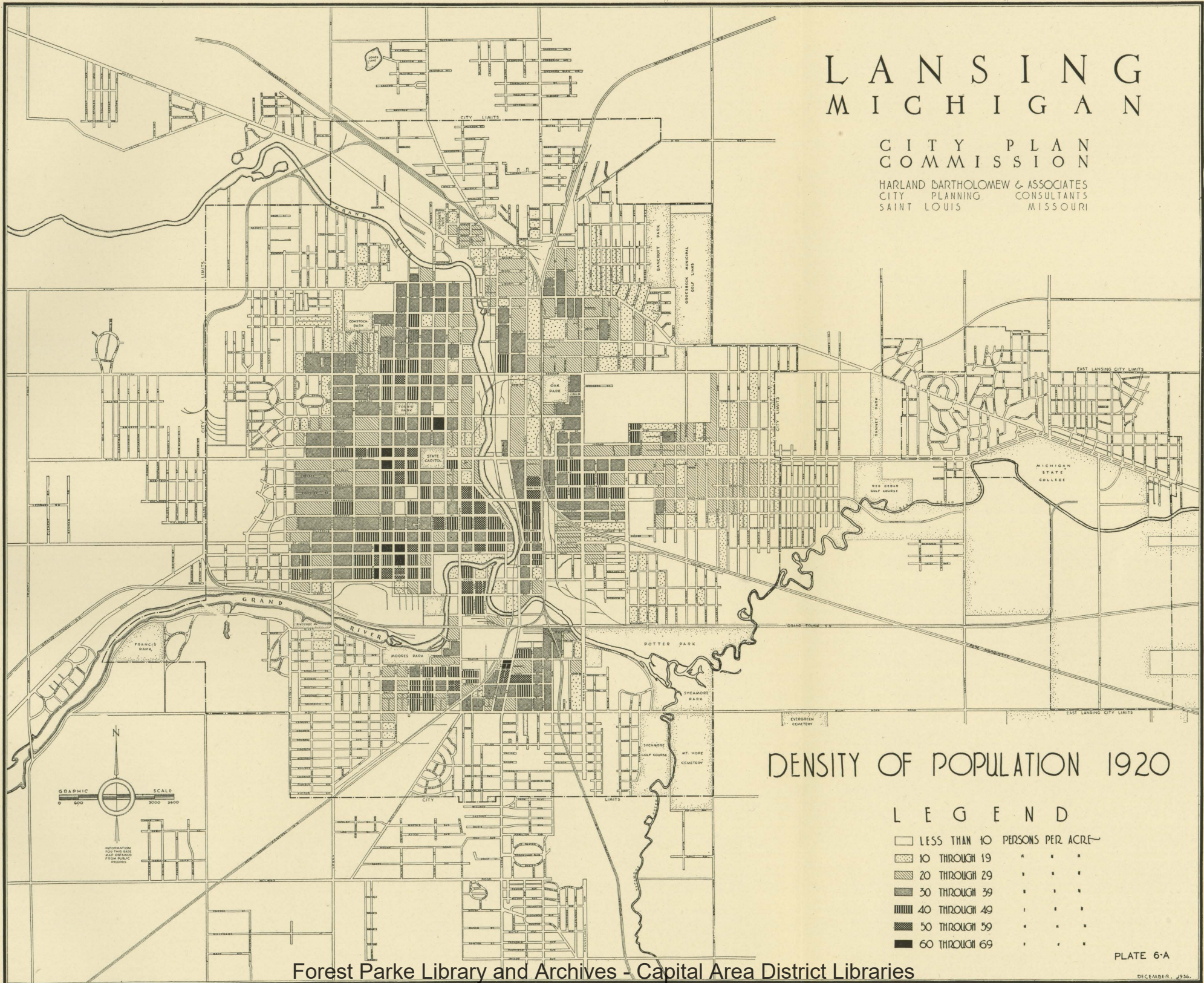
LEGEND

- ONE FAMILY DWELLING
- × TWO FAMILY DWELLING
- ▲ APARTMENT

LANSING MICHIGAN

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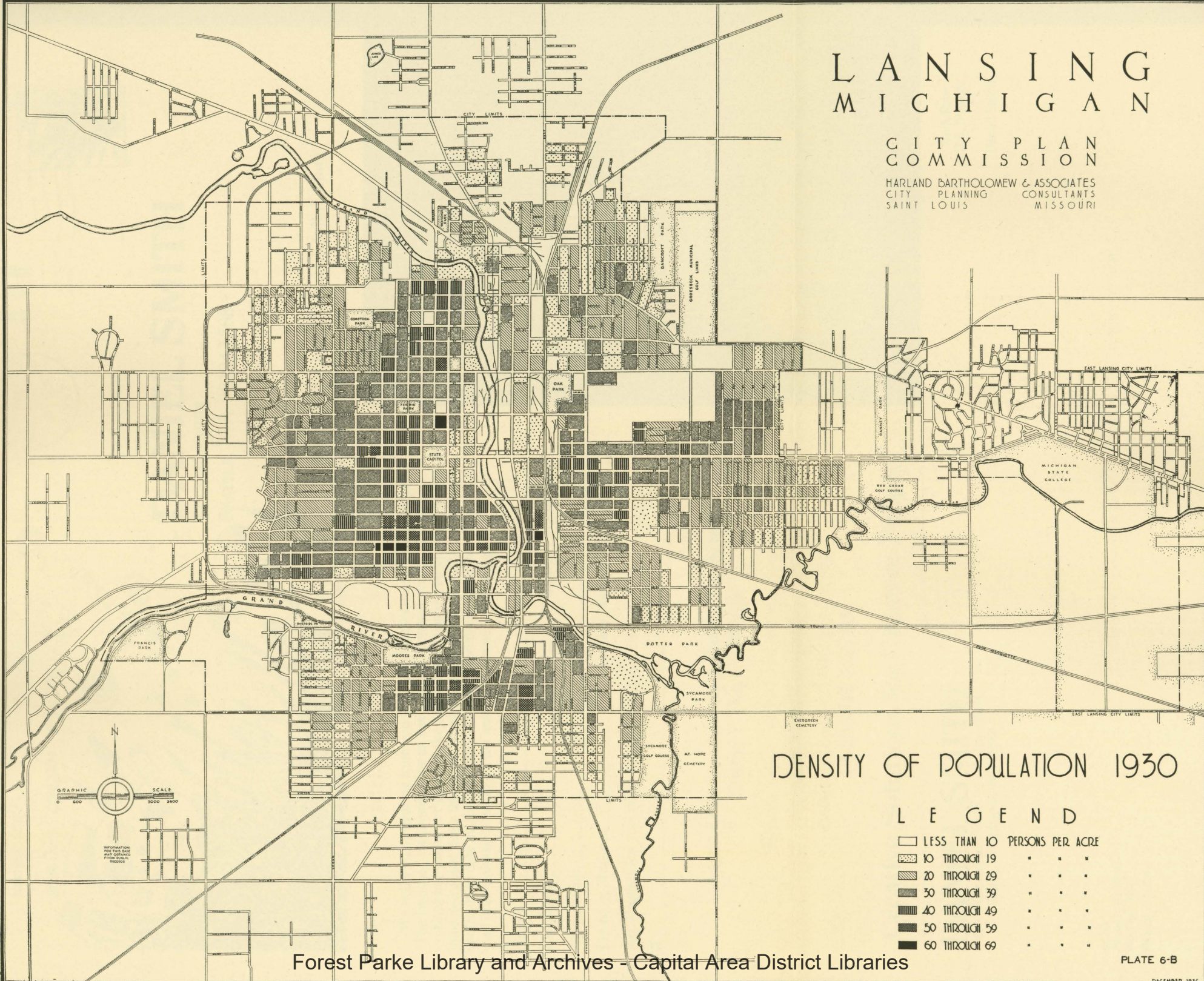
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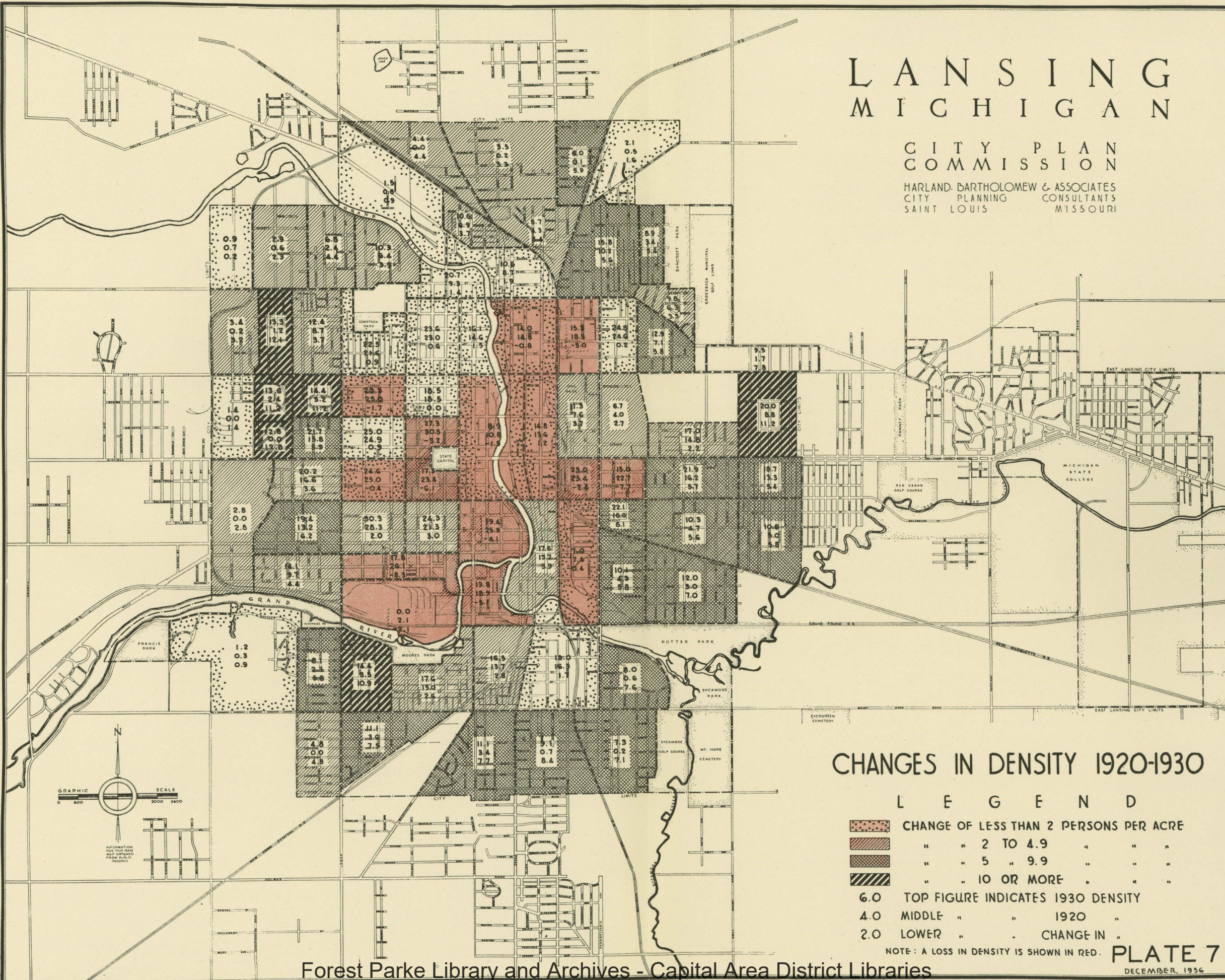


PLATE 7
DECEMBER, 1936

solescence. Large numbers of single-family dwellings have been erected, however, in the outlying sections, particularly in the south and west.

Practically all of the land surrounding the present city, with the exception of the southeastern portion, is well adapted for future urban development. Certain radial street improvements would be desirable in some of the outlying corners of the city to insure accessibility and a well rounded growth. In a large city, containing a rectangular system of streets, development often lags around the four corners. Radial streets are necessary to encourage development within such areas.

Past and Present Density of Population

The population density, or the average number of persons per acre, in each city block, is shown on Plate Number 6, for the years 1920 and 1930. Much of the city has a net density (exclusive of the area in streets and parks) of less than 10 persons per acre, although such areas are, for the most part, confined to outlying portions and to industrial districts. There are practically no congested areas. A comparatively uniform density is found in older residential sections surrounding the business district. The majority of this area has a predominating density of between 30 and 39 persons per acre. This is the section in which resubdividing of lots and construction of apartments frequently results in high densities. No pronounced tendency of this character is found in Lansing.

Table Number 3 contains statistical data regarding the changes in net density that occurred between 1920 and 1930. The number of blocks having a density of less than 10 persons per acre greatly decreased between 1920 and 1930, while the number of blocks having a density of between 10 and 30 persons per acre showed a marked increase. There was also a decided decrease in the number of blocks having a high population density, which further emphasizes the absence of any trend toward a high density.

Plate Number 7 graphically shows the changes in gross density that occurred within districts or neighborhoods during the last decade (1920 to 1930). The changes within the neighborhoods give a more general picture of the trends since a pronounced change within

a single block, resulting from the erection of a large apartment or a public building, would have little influence upon the larger neighborhood. The average densities on this map are lower than densities for individual blocks since the total area of the neighborhood (including streets) is used in computing the density.

This plate also shows a pronounced increase in the gross densities of the outlying sections and the decrease in the gross densities of the older central areas. The decreases in the area surrounding the State Capitol are caused by absorption of land for non-residential purposes and such decreases can be expected to continue in business and industrial districts. It will be noted, however, that commercial and industrial districts represent only a portion of the areas that decreased in density during the last decade.

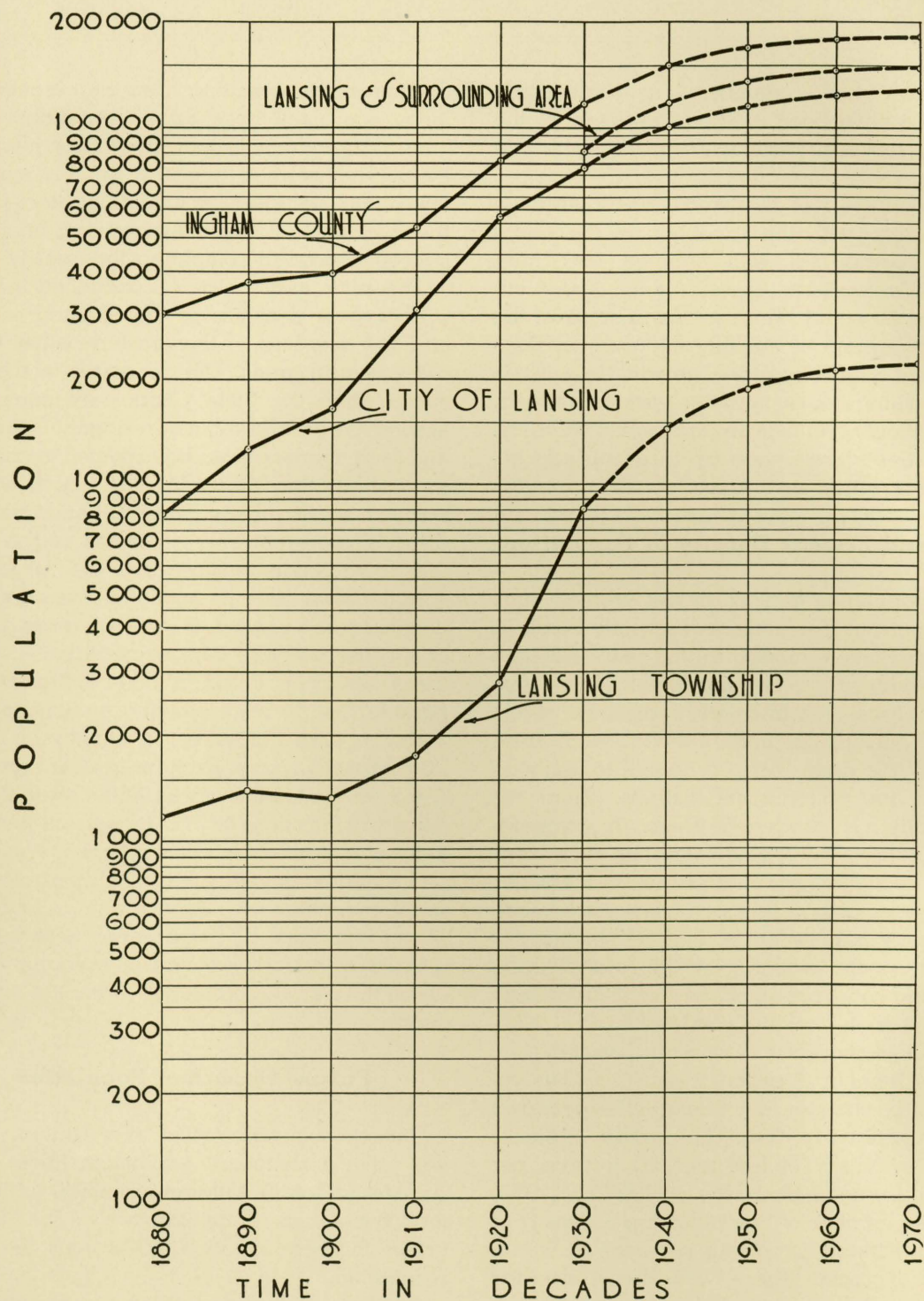
In the older central residential areas there is a decided trend toward an average gross density of approximately 25 persons per acre. A similar trend has been noted in other cities of comparable size. In more outlying sections there is a trend toward a gross density of between 15 and 20 persons per acre. Excluding vacant property (24.8 per cent of the city area) the present gross density of the entire city is 13.0 persons per acre, a density prevalent in cities of similar size.

A scattered development should be prevented in the outlying areas. An average gross density of not less than 10 persons per acre in such districts is desirable to obtain maximum economies through full utilization of public improvements.

Future Growth of Population

Statisticians agree that the United States will have a stationary population about 1960. An average of the different estimates indicate a total population of approximately 155,000,000, or an increase of 35,000,000 over the 1930 population.

It is thus evident that cities cannot anticipate unlimited growth. Some, possessing unusually favorable characteristics, may continue to grow after 1960, but they will do so only by drawing population from some other area. The majority of all urban areas will grow at a lower rate in the future. Lansing's rate of growth during the past decade was considerably lower than during the two preceding decades.



POPULATION GROWTH LANSING & ENVIRONS

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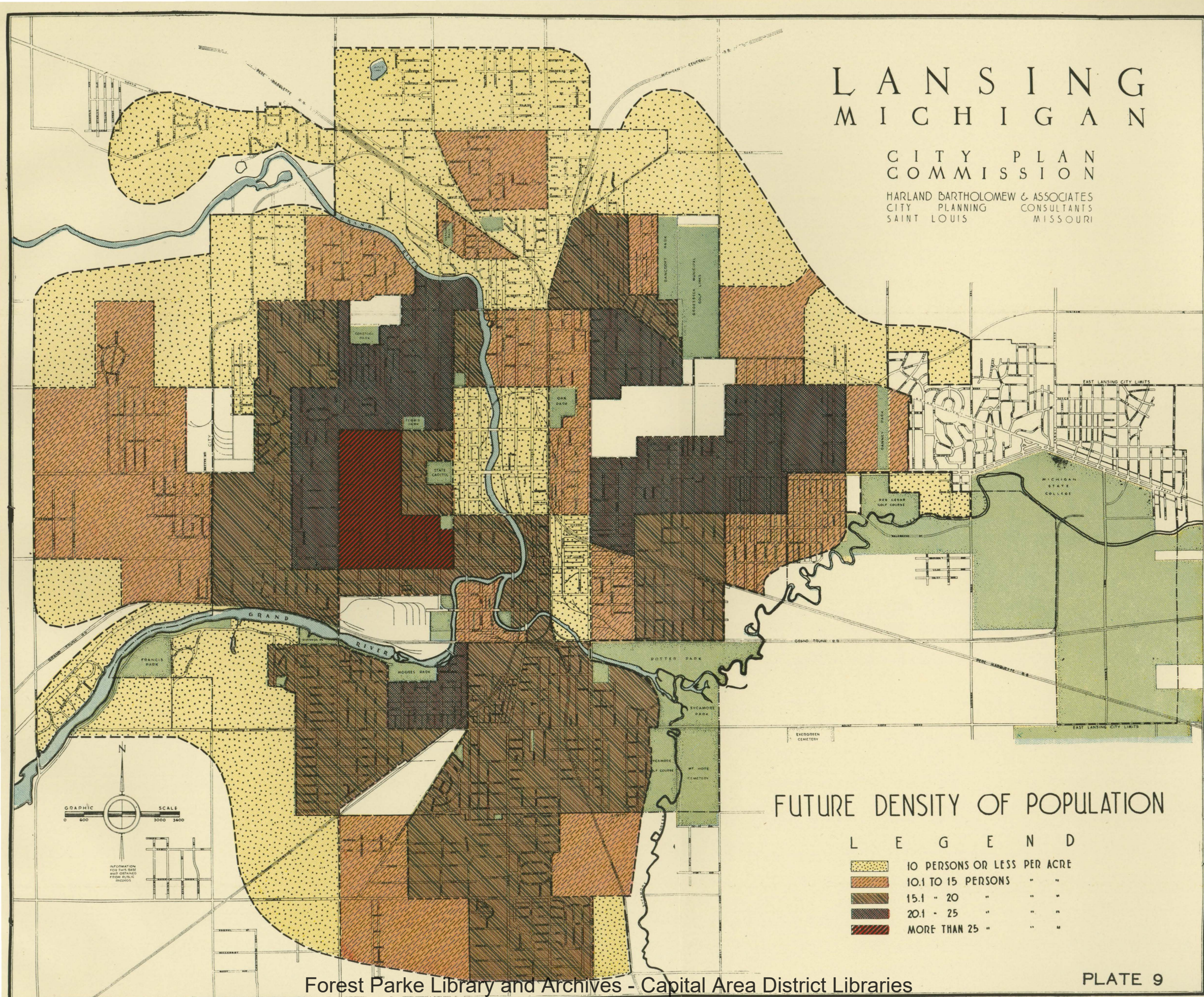
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PLATE 8
DECEMBER, 1936

LANSING MICHIGAN

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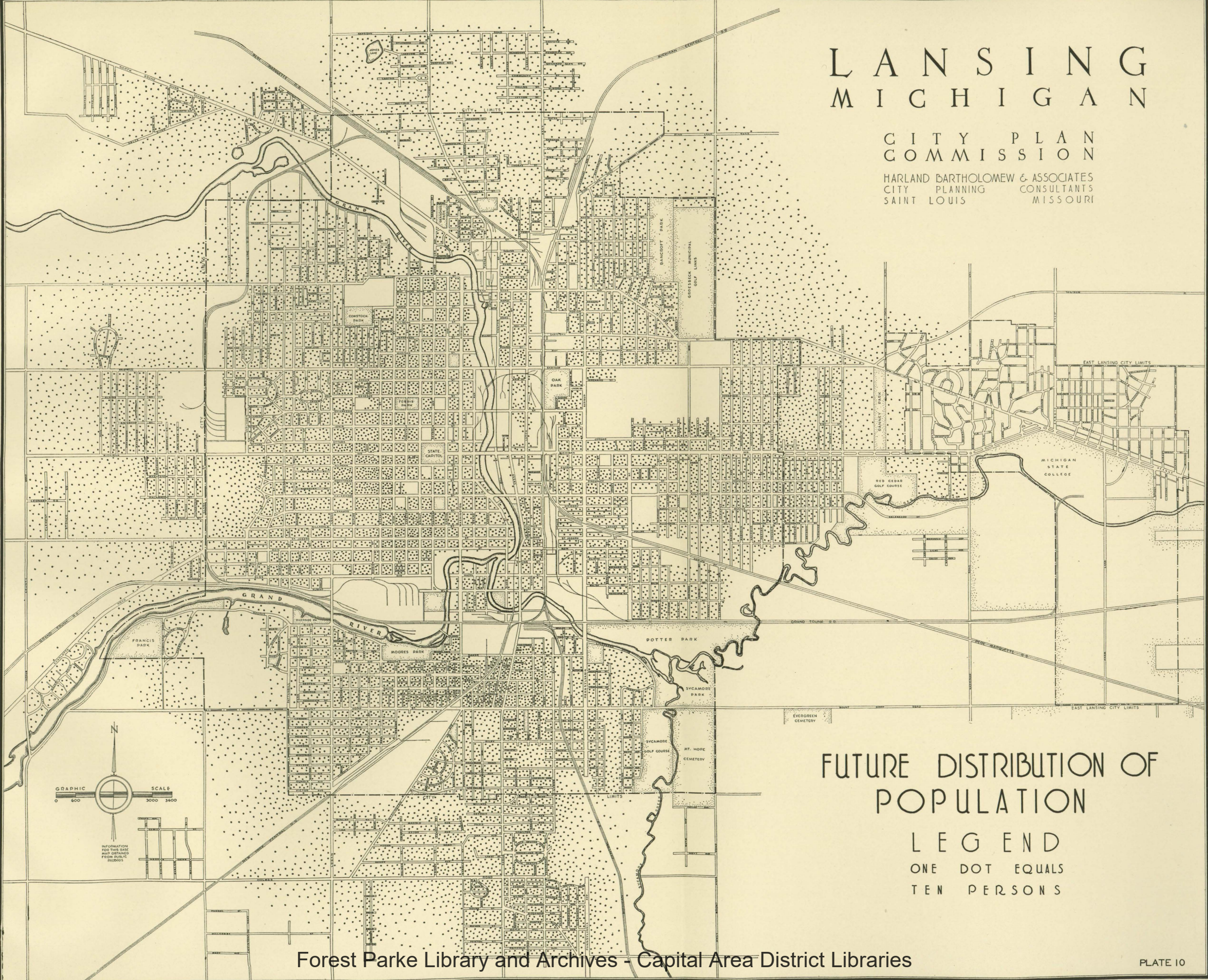
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FUTURE DISTRIBUTION OF POPULATION

LEGEND

ONE DOT EQUALS
TEN PERSONS

Plate Number 8 graphically shows the past and estimated future population growth in Lansing and its environs. It is estimated that the county population will be about 180,000 by 1960 and that thereafter, it will remain more or less stationary. The population increase in the state has been averaging about 6 per cent of the total increase in the United States and the increase in Ingham County has been averaging about 3 per cent of the total increase in the state. An increase of 35,000,000 in the United States should result in an increase of 2,100,000 in Michigan and an increase of 63,000 in Ingham County.

The 1960 population in the city of Lansing and in the immediately surrounding area is estimated at 146,000, an increase of approximately 68,000 over the 1930 population within the corporate limits. The city will have a much slower rate of growth after 1960, although it will probably grow faster than the county. The increase in Lansing has varied between 60 and 90 per cent of the increase in the county during the past decade. Of the total future population of 146,000, it is estimated that approximately 126,000 can be accommodated within the present city limits and the remainder will be in adjoining areas that are now being developed for urban purposes. There are now more than 8,000 persons living in unincorporated territory around Lansing, yet close enough to be an integral part of the city's urban area. Practically all these persons are in Lansing Township and the township's growth will therefore determine the population of the city's environs. Sixteen per cent of the population increase in Ingham County was in the unincorporated portion of Lansing Township during the past decade. A slightly higher percentage of increase can be anticipated in the future.

Additional population will be found in the surrounding areas, particularly within the city of East Lansing and portions of the nearby townships. This population will have certain influences upon the larger city, especially upon retail trade, but the officials of Lansing will not be responsible for servicing it with the necessary public facilities. It is estimated that by 1960 there will be an additional population of 14,000 persons in this area giving a total population, in the city and environs, of 160,000.

Density and Distribution of Future Population

Plate Number 9 shows the estimated future gross density of population in the several neighborhoods of the probable urban area. A few areas, located near the central part of the city, will have a gross density of more than 25 persons per acre. These districts will accommodate the majority of the apartment or multiple dwelling developments. Surrounding the business district and extending eastward along both sides of Michigan Avenue will be large numbers of neighborhoods containing a density of between 20 and 25 persons per acre. Many desirable residential districts now have such a density. A large amount of the remaining residential neighborhoods will contain a gross density of between 15 and 20 persons per acre.

Only a comparatively small portion of the future urban area is shown with a density of less than ten persons per acre. This density is primarily confined to the neighborhoods in which there should be industrial development, and to the extreme outlying sections, where a more spacious type of development can be expected and where there will be parks and semi-public uses.

This plan shows an urban area outside of the present city limits of approximately 4,200 acres which would provide a total future urban area of 11,700 acres. It could readily accommodate the future population of 146,000. The average gross density within this area would only be 12 persons per acre, whereas it is estimated that the present gross density of the city, exclusive of the vacant property, is 13.0 persons per acre. Subdivisions and the installation of public improvements should be kept within this area to prevent an uneconomic scattered development.

The estimated distribution of future population is shown on Plate Number 10. Approximately 100,000 persons are located within the present city limits, and the remainder, or 46,000, are in the outlying sections. Practically no population is located more than three miles from the central business district and the great majority of the future growth can easily be accommodated within two miles of the central section.

CHAPTER TWO

Major Streets

INTRODUCTION

AUTOMOBILES will undoubtedly continue to move the great majority of people and commodities about the city. It is estimated that there will be about 50,000 autos in Lansing by 1965. Since this is about twice the present registration, it will be necessary to develop many wide and direct routes to accommodate these vehicles. These wide and direct routes will comprise the major street system and will provide for convenient and direct access from one section of the city to another.

Major and Minor Streets. Major streets located about one-half mile apart will accommodate vehicular traffic in a city. Thus only a comparatively small percentage of the total street system will require a wide pavement and direct alignment. The remainder (minor streets) should have narrow pavements and a more indirect alignment. Used only for access to abutting property, they should be arranged to discourage through traffic, thus affording major economies and protecting residential areas.

This chapter contains recommendations regarding the location and width of routes which should comprise the ultimate major street system for Lansing. A considerable portion of the future system now exists; certain improvements should be made in the near future, while others can be gradually developed during the next thirty years.

Diagrammatic Major Street System

What is an ideal major street system for Lansing? The accompanying plate (Number 11) diagrammatically shows an ideal system of major streets. It is analyzed so that such a system can be approximated as closely as fixed conditions permit. Major streets must provide for three distinct movements:

Radial Routes. Radial enable all persons to quickly and conveniently reach the central business district, the major objective of traffic. Similar to spokes in a wheel, they go directly

from the central business district (hub of the wheel) to all sections of the city. These routes usually extend beyond the city as main highways and carry through as well as local traffic. In an urban area as large as Lansing, each radial should be 100 feet wide.

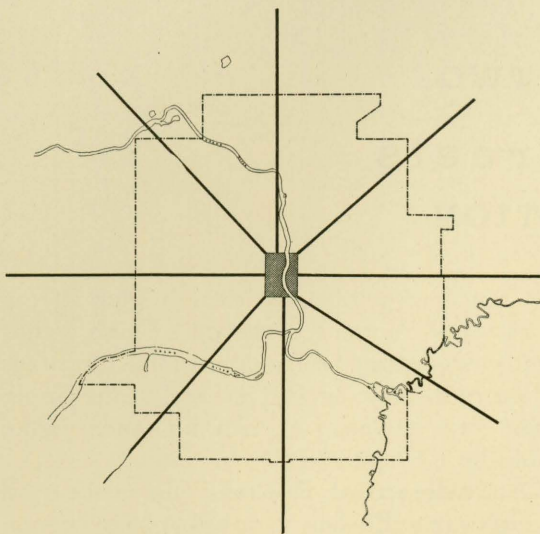
Circumferential Routes. The majority of the highway traffic has no desire to pass through or stop within a city. A wide route permitting through traffic to skirt the edges of the urban development is of great convenience and eliminates congestion within the city. The by-passing of through truck traffic is of special importance.

The by-pass route should have a width of 100 feet, a wide pavement and a direct alignment to dissuade passage through the city. This route should be along the edge of the ultimate urban area and a right of way width of 200 feet or more will make possible the development of this road as an encircling parkway or greenbelt.

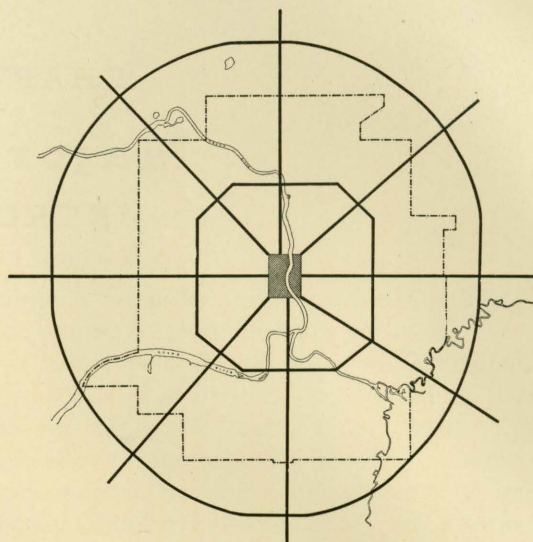
It is also desirable to have a wide street around the central business district, so that local traffic can pass around rather than through the area of greatest congestion. Such a street also permits the traffic to travel along the edge of the district until it reaches the street upon which it wishes to enter the central area. Often another by-pass route about midway between the business district and the outer circumferential is desirable.

Cross-Town Routes. The cross-town routes are for vehicular movement from one residential section to another or between residential and industrial areas. These routes should be continuous and direct throughout the urban area. Spaced at about one-half mile intervals and following a gridiron pattern, they divide the residential areas into super-blocks or neighborhood units. These routes should be 80 feet in width.

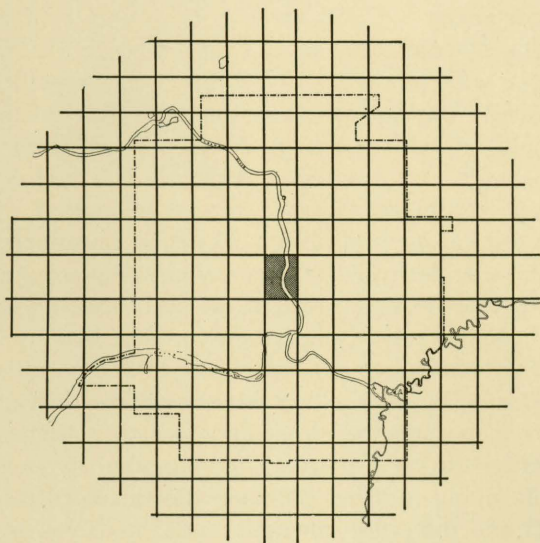
The plan for the complete system enables all sections of the city to have direct access to all other areas. A balanced urban development with no traffic congestion or delay would result.



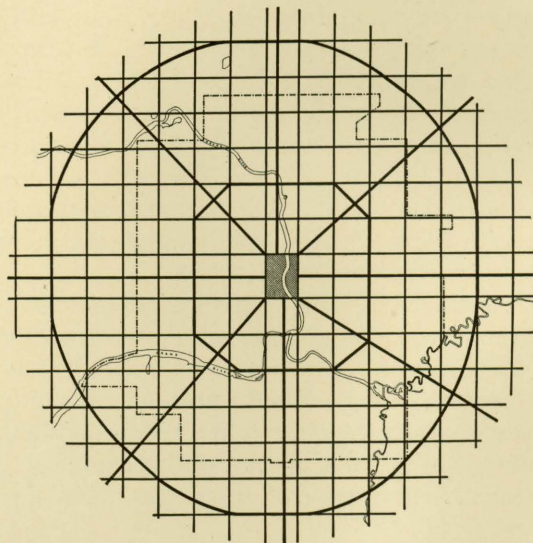
RADIAL STREETS



RADIAL & CIRCUMFERENTIAL STREETS



CROSS-TOWN STREETS



COMPREHENSIVE SYSTEM
OF MAJOR STREETS

DIAGRAMMATIC MAJOR STREET SYSTEM LANSING MICHIGAN

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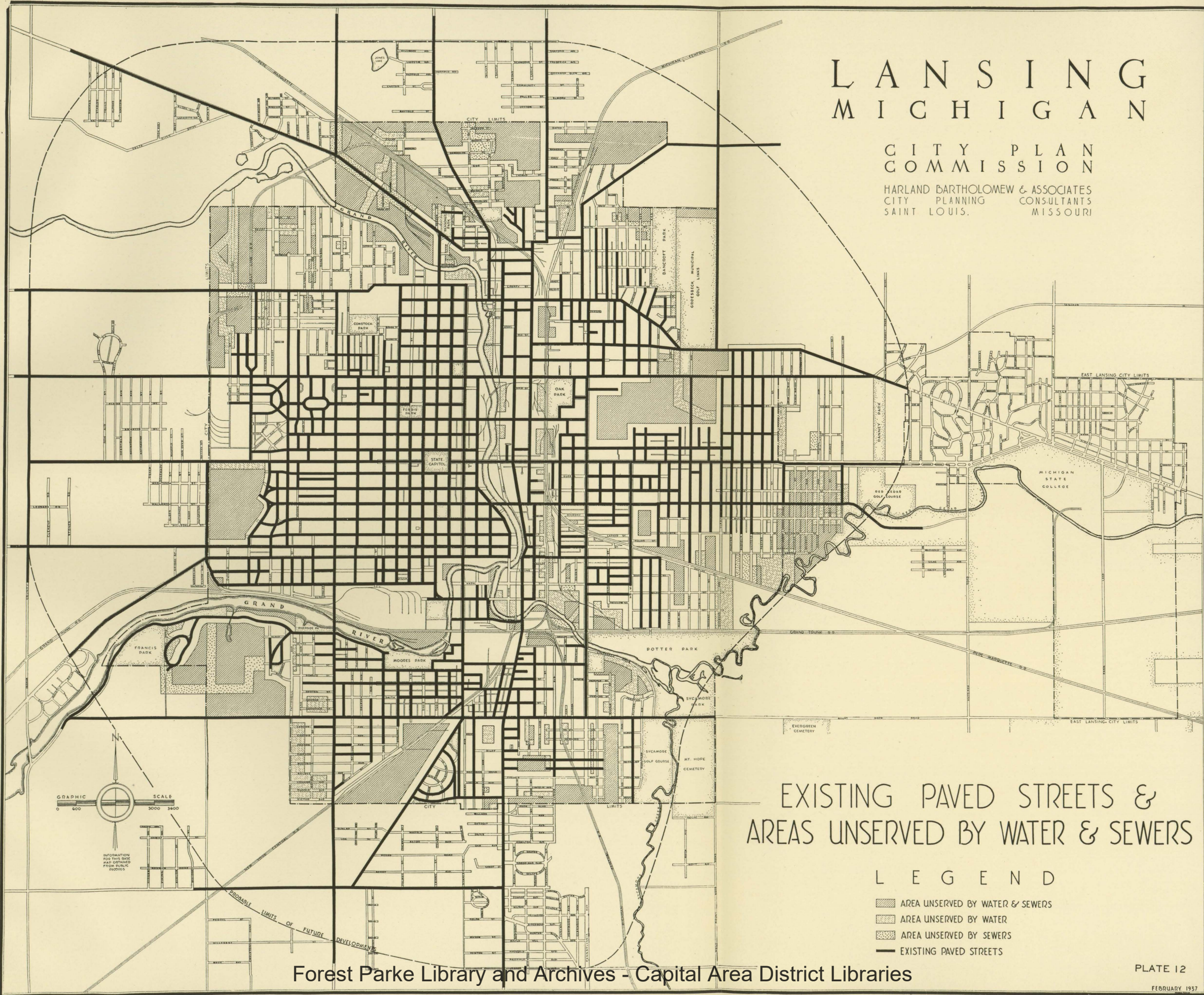
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PLATE 11

LANSING MICHIGAN

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EXISTING PAVED STREETS & AREAS UNSERVED BY WATER & SEWERS

L E G E N D

- AREA UNSERVED BY WATER & SEWERS
- AREA UNSERVED BY WATER
- AREA UNSERVED BY SEWERS
- EXISTING PAVED STREETS

Existing Streets

Much of the future urban area is now developed with streets, some of which will have to be used in the proposed major street system. All existing public streets and those which are improved with a hard surface are shown on the accompanying plate (Number 12). This plan also shows the few areas within the city limits that are now unserved by sewers and water.

A large proportion of the existing streets are paved, but in many instances there is little or no difference in the width of the pavements on major and on minor streets. Furthermore, practically all of the city is developed with a gridiron system of straight streets. Traffic is not encouraged to concentrate upon a few streets, but instead traverses many residential districts and adversely affects abutting dwellings.

No radial streets leading directly from the business district to the four corners of the developed area are found within the present system. Neither is there any continuous by-pass or circumferential route around the present urban area. The absence of any north and south street running directly or continuously through the entire city and the absence of any east and west street in the northern portion of the city are outstanding defects.

The present street system does, however, contain desirable elements. The wide streets in the business district are of maximum advantage. Certain wide and direct routes, such as Michigan, are found in the older sections of the city. Large and extensive developments now front on these streets, and widening of the rights-of-way would be an expensive undertaking. A good nucleus is available for the development of an efficient major system.

Present Traffic Flow

The accompanying plate (Number 13) shows the present traffic flow within Lansing. It clearly indicates the dominant movements and shows where improvements should be provided in the future street system.

This study was prepared with the assistance of the Lansing Traffic Bureau, the Works Progress Administration, and the Michigan State Highway Planning Commission. The survey covered the entire city and counts were taken on all existing major streets.

Certain streets which lead directly to the central business district carry the majority of the vehicular traffic. A considerable volume of traffic, particularly during maximum hours, is also found on streets serving large industries.

Michigan Avenue is used by 2.2 times the average number of cars found on the remaining streets. The importance of Kalamazoo Street and Washington Avenue is also evident. In the central portion of the city, the east and west traffic is better concentrated on a few well improved routes than the north and south traffic.

The small volume of traffic in the outlying areas is due to the absence of wide and well improved cross-town routes. Traffic uses several streets rather than concentrating upon a single route. Logan is the only street that carries a nominal volume. The comparatively low volume on Mount Hope Road is primarily due to inadequate width.

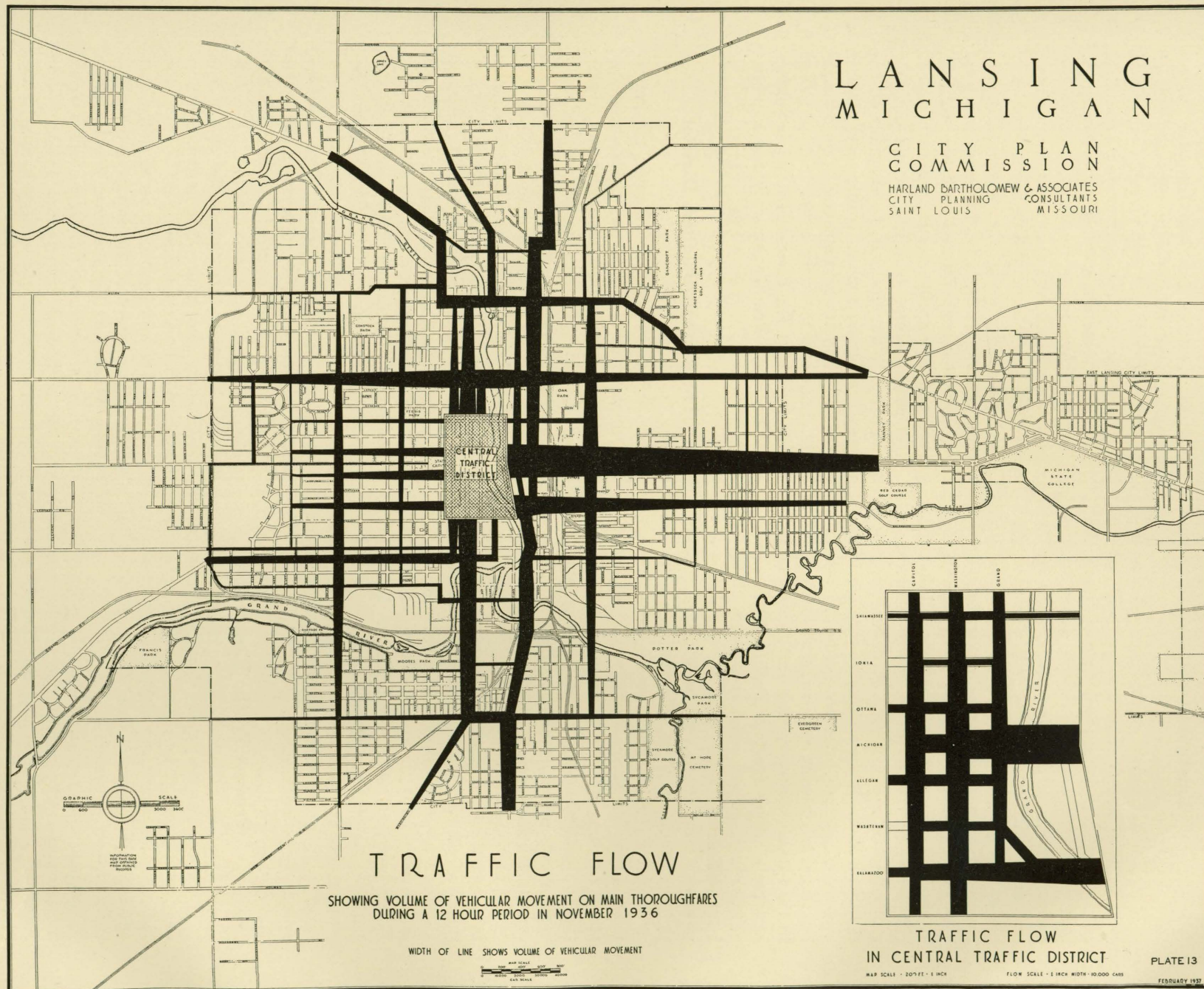
The Central Business District

The diagrammatic plan indicated the important relationship between the major street system and the central business district. Wide streets should surround the district and new streets and extensions may be necessary to permit proper circulation within the area.

The location and character of both Kalamazoo and Shiawassee Streets make them well suited to serve as boundary streets for the business district in Lansing. Likewise, Capitol Avenue is a logical boundary street on the west. A westward extension of the business district would also be undesirable, because of the State Capitol development.

While the population growth in the southern portion of the city may ultimately pull commercial development south of Kalamazoo Street, much additional population growth is anticipated in the eastern portion of the city and in East Lansing and future commercial development should be encouraged east of the river. Larch street is well located to serve as the eastern boundary street of the business district.

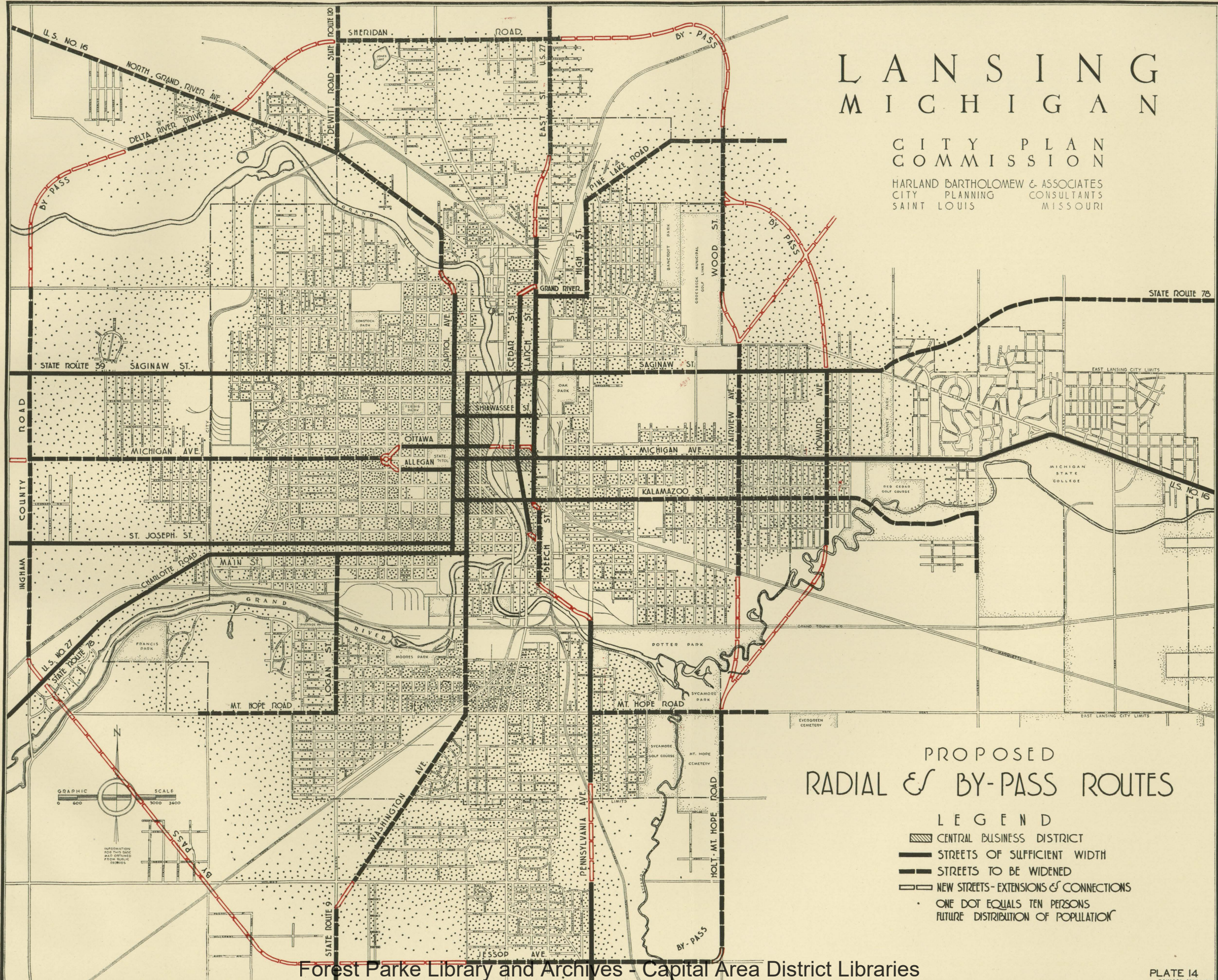
New Streets or Extensions. The extension of Ottawa Street across the Grand River would provide additional commercial frontage and would facilitate the east-west vehicular movement within the central area and assist in preventing excessive congestion on Michigan. A well balanced business district would result, and



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PROPOSED RADIAL & BY-PASS ROUTES

LEGEND

- CENTRAL BUSINESS DISTRICT
- STREETS OF SUFFICIENT WIDTH
- STREETS TO BE WIDENED
- NEW STREETS - EXTENSIONS & CONNECTIONS
- ONE DOT EQUALS TEN PERSONS
FUTURE DISTRIBUTION OF POPULATION

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MAJOR STREET PLAN

LEGEND

- STREETS OF SUFFICIENT WIDTH
- STREETS TO BE WIDENED
- NEW STREETS - EXTENSIONS & CONNECTIONS

the value and character of certain existing property would be improved.

The remaining streets within the future business district are of adequate width, and no major physical improvements are necessary. Certain measures regulating the movement and parking of vehicles within the central area are desirable, however, in insuring maximum use of existing streets.

Proposed Radial and By-Pass System

A. Radial Thoroughfares. Existing development makes it practically impossible to establish a system of radials similar to those indicated on the diagrammatic plan. However, Plate Number 14 shows a proposed system of radials that would serve the same function. The plan shows the probable distribution of the future population and it is evident that all persons would have a convenient entry into the central area.

To serve the central eastern part of the city, three radials are proposed: Michigan Avenue, Kalamazoo and Saginaw. These streets are direct and well located. As part of the radial system a diagonal is proposed leaving Fairview at North Grand River Avenue and going north-east into now undeveloped territory.

In the northern portion of the city, Larch, Hall and East streets are combined to form one radial and North Grand River connected with Capitol to form the other. Pine Lake Road and High Streets are used as a radial serving the north-east section and Dewitt Road is used in the north-west section.

Three radials are also proposed to serve the western portion of the city: Saginaw, St. Joseph and Main, and Michigan Avenue. At present, traffic enters the business district from the west in an undirected and unsatisfactory manner.

Pennsylvania, rather than Cedar Street, is used as one of the major radials in the southern portion of the city. Cedar Street is not properly located to fit into the radial system. Furthermore, it is too narrow, and widening would be prohibitive, while Pennsylvania is of adequate width. The other major radial to the south is Washington Avenue.

A brief description of each proposed radial follows:

1. Beech-Pennsylvania. This contemplates the extension of Pennsylvania south with a viaduct over the Michi-

gan Central R. R. as now planned by the County Highway Commission, to connect with U. S. Number 127. The northern portion of the route would cross the Grand Trunk R. R. and a new extension would be developed paralleling the Red Cedar River and connecting with Beech Street at Hazel Street. Here it will continue on Beech Street to St. Joseph Street where the radial will use two streets, Cedar and Larch until the business district is reached. A connection will be necessary at Beech and Larch and also to extend Beech into Cedar Street. Wherever the route uses two streets, each should be 80 feet wide. Elsewhere the route should be 100 feet wide. These connections and improvements, when completed, will eliminate the present congestion on Cedar Street.

2. Kalamazoo Street. Kalamazoo Street now gives very satisfactory service as a radial. It is recommended that it be 80 feet wide throughout its length which will necessitate widening between Michigan Central and Pere Marquette Railroads, and from Holmes Street to Harrison Road.

3. East Michigan Avenue. This street is an ideal radial and carries the majority of the traffic in the central eastern portion of the city. From the Michigan Central R. R. to the eastern city limits it should be widened from 99 to 115.5 feet.

4. Saginaw Street. Saginaw Street also gives good service as a radial. It should be widened to 80 feet between Cleveland Street and the park property at Marshall and Saginaw.

5. Pine Lake Road-High Street. These two routes will connect with Grand River Avenue and thence into Larch Street, and will provide an additional radial in the north-eastern portion of the city. They should be widened to 80 feet. Pine Lake Road should ultimately be widened to 100 feet east of its intersection with the new diagonal street.

6. Cedar and Larch, Hall, East. This northern radial balances the Beech-Pennsylvania route. Cedar and Larch Streets should be 80 feet wide and should be connected between Liberty Street and North Grand River Avenue. North of this point the radial should be 100 feet wide. A new connection is now being made between Larch and East Street near the Thomas Street School.

7. Capitol-North Grand River. This route is well located and will serve as a very important radial. The jog between Capitol and North Grand River should be eliminated in the near future and eventually North Grand River Avenue should be widened to 100 feet.

The widening of Dewitt Road to 80 feet will provide an additional radial in the northwest portion of the city.

8. West Saginaw. West Saginaw now provides effective service as a radial. Its present width is satisfactory;

9. West Michigan. This route should serve traffic as East Michigan now does east of the business district. It should be widened to 100 feet from the County Line Road to Sycamore Street. Here it is proposed that diagonal connections be made to Ottawa and to Allegan Street. These improvements will also furnish an impressive approach to the State Capitol development.

10. St. Joseph and Main. It is proposed that both St. Joseph and Main Streets be used to eliminate any widening in the development of a radial to the west and southwest. Traffic entering the city from highways No. 78 and No. 27 (Charlotte Road) would use Main Street. St. Joseph would serve the local traffic in the western part of the city.

Logan Street from Main to Mount Hope and Mount Hope from Logan to Moores River Drive would also be a radial serving the southwestern portion of the city. These routes should be widened to 80 feet.

11. South Washington. South Washington now serves as a very important radial. South of the Grand Trunk R. R. it should be widened to 100 feet. The jog at Holmes Road should be eliminated in the near future as there are no existing improvements that would interfere with this connection.

B. The By-Pass Route. Plate Number 14 also shows the proposed location of the by-pass route, or circumferential. This plan shows the ultimate development and in the meantime certain existing streets could be temporarily used. For example, Holmes Road might form a portion of the by-pass until Jessop Avenue is extended westward.

This route would permit through traffic to go from one highway to another without congesting the central area. Little additional mileage would be involved, much time saved and local movements on the outskirts of the city facilitated.

Except where the route divides into two 80 foot streets, it should have a continuous minimum width of 100 feet. A width of 200 feet would be preferable and should not be difficult to acquire because of the small amount of existing development encountered. A large portion of the route utilizes existing streets. Practically all connections are located in undeveloped sections and could either be acquired at nominal cost or through subdivision control. Throughout the majority of its length the route borders the probable future urban area.

Comprehensive System of Major Streets

The proposals for a complete system of major streets are shown on Plate 15. This plan includes the routes discussed in the preceding section (Radials and By-Pass) and also shows proposed cross-town streets.

Cross-town routes are badly needed in Lansing. Because areas have been improperly served by major streets, residential develop-

ment has lagged in several sections such as the area immediately north of Potter Park. Most of the present routes are narrow and many extensions and connections are necessary. Mount Hope is the only continuous cross street throughout the city and environs.

The proposed system connects all sections of the urban area. Some portions of these streets will serve as feeders to the proposed radials and others as an intermediate by-pass around the central area. For example, Saginaw, Pennsylvania, Olds-Hazel and Logan Streets could be used by traffic bound between opposite corners of the city and the central business district avoided.

A brief discussion of each cross-town route follows. Unless otherwise indicated, each of these streets should be 80 feet wide. While several of the radials and portions of the by-pass will also serve as cross-town streets, they have been fully discussed in preceding sections. The streets are discussed in alphabetical order.

ALICE STREET—See Logan.

ALLEGAN STREET—See Radials.

BAKER STREET—See Moores River Drive.

BATES STREET—See Jackson Street.

BYRNFOR ROAD—To serve the western area it is proposed that Byrnford Road be widened and extended north to Willow, and then northeastwardly to connect with the extension of David Street along the northern city limits.

CAPITOL AVENUE—See Radials.

CEDAR STREET—See Radials.

DAVID STREET—It is imperative that this street be extended and connected through from Wood Street to Grand River Avenue in the near future. No route now exists within this section of the city for an east-west route. The proposed route is well located to serve this function. The route should also be extended westward across the river along the northern city limits.

DELTA RIVER DRIVE—Part of By-Pass Route.

DEWITT ROAD—In addition to its service as a radial this route will serve as an extension of the proposed Logan-Alice Street development.

EAST STREET—See Radials.

ELM STREET—See Olds Avenue.

EVERETT STREET—See Verlinden.

FAIRVIEW STREET—Part of By-Pass Route.

FILLEY—See Jackson.

FOREST-STABLER—To serve the rapidly developing area in the southern portion of the city, Forest and Stabler should be widened and connected. These routes can care for the north and south cross-town movement in this area.

GRAND RIVER AVENUE—See Willow Street.

HALL STREET—See Radials.

HAZEL STREET—See Olds Avenue.

HIGH STREET—See Pennsylvania Avenue.

HOLMES ROAD-HOYT AVENUE—This street will serve the area between the south city limits and the by-pass route. Both streets should be widened and a new connection is necessary. This connection uses a portion of Ravine Drive to avoid rugged topography. A connection between Hoyt and Harrison Road will eventually be useful. Holmes Street can be relocated so that only one grade separation will be necessary for it and the by-pass at the intersection with the New York Central R. R.

HOWARD—Part of By-Pass Route.

HOYT AVENUE—See Holmes Road.

JESSOP AVENUE—Part of By-Pass Route.

JACKSON-BATES-FILLEY—An east and west route is needed near the northern city limits. This can best be provided by widening and connecting Jackson and Bates and by an extension eastward to Pine Lake Road. There should also be an extension westward to Filley Street and thence to the by-pass route.

KALAMAZOO STREET—See Radials.

LARCH STREET—See Radials.

LOGAN STREET AND ALICE—A major defect in the present street system is that there is only one bridge over the Grand River in the northern section of the city. Cross-town movement in this general area is very indirect. This condition can be greatly improved by connecting Alice and Logan Streets, building a bridge at the north end of Alice Street, and extending the route northward to North Grand River Avenue. Both of these streets should be widened in the near future.

MAIN STREET—Besides serving as a radial, Main Street also serves as a cross-town street between Washington and River and between Pennsylvania and the Pere Marquette R. R. When the Pere Marquette is abandoned, it can be used as a cross-town street throughout part of its length.

MICHIGAN AVENUE—See Radials.

MOORES RIVER DRIVE-BAKER STREET—This route serves as an east and west cross-town in the south of the city. The jog at Baker and Moores River Drive should be eliminated and both streets widened to 80 feet. Traffic movement would be greatly facilitated by the rounding of the corners of Moores River Drive at the western end of Moores Park.

MOUNT HOPE AVENUE—The importance of this route has been indicated. The major improvement necessary is widening the right of way from 66 to 80 feet.

OLDS-HAZEL—A cross-town route is needed to serve this area and to provide greater access to the Olds Motor Works. Olds Avenue should be connected to Hazel by the building of two bridges. Hazel should be widened to 80 feet between the Michigan Central R. R. and Pennsylvania Avenue.

PENNSYLVANIA AVENUE, HIGH STREET AND PINE LAKE ROAD—South of the Grand Trunk R. R. this street serves as a radial. North of this point it becomes the principal cross-town thoroughfare east of the business district. The route is of adequate width, but the jog between Pennsylvania and High Street at Grand River Avenue should be eliminated.

PINE LAKE ROAD—See Radials.

RIVER STREET—This is a local service street which primarily carries truck traffic and serves local industries. Its present width is sufficient and no major improvements are necessary.

SAGINAW—See Radials.

SAINT JOSEPH—See Radials.

SHERIDAN—Part of By-Pass Route.

STABLER—See Forest.

SUNSET—See Verlinden.

TURNER STREET—When widened to 80 feet, Turner will serve both as a cross-town route and as an outlet to the north.

VERLINDEN-EVERETT-SUNSET—This route will serve the Fisher Body Plant and provide a much needed cross-town route in the western portion of the city. A new connection is needed between Everett and Verlinden and between Verlinden and Sunset. This latter connection and its proper improvement should encourage the development of the northwest corner of the city. It will be ultimately necessary to construct a bridge across the Grand River and extend the street northward to North Grand River Avenue.

VICTOR-WILLARD—A cross-town street is now needed at the southern city limits. It is proposed that Willard Street be widened and extended to Pennsylvania on the east and to Logan on the west. Victor should be widened and extended westward to the proposed by-pass. While this alignment creates a jog at Logan, it makes possible the use of one grade separation over the New York Central tracks.

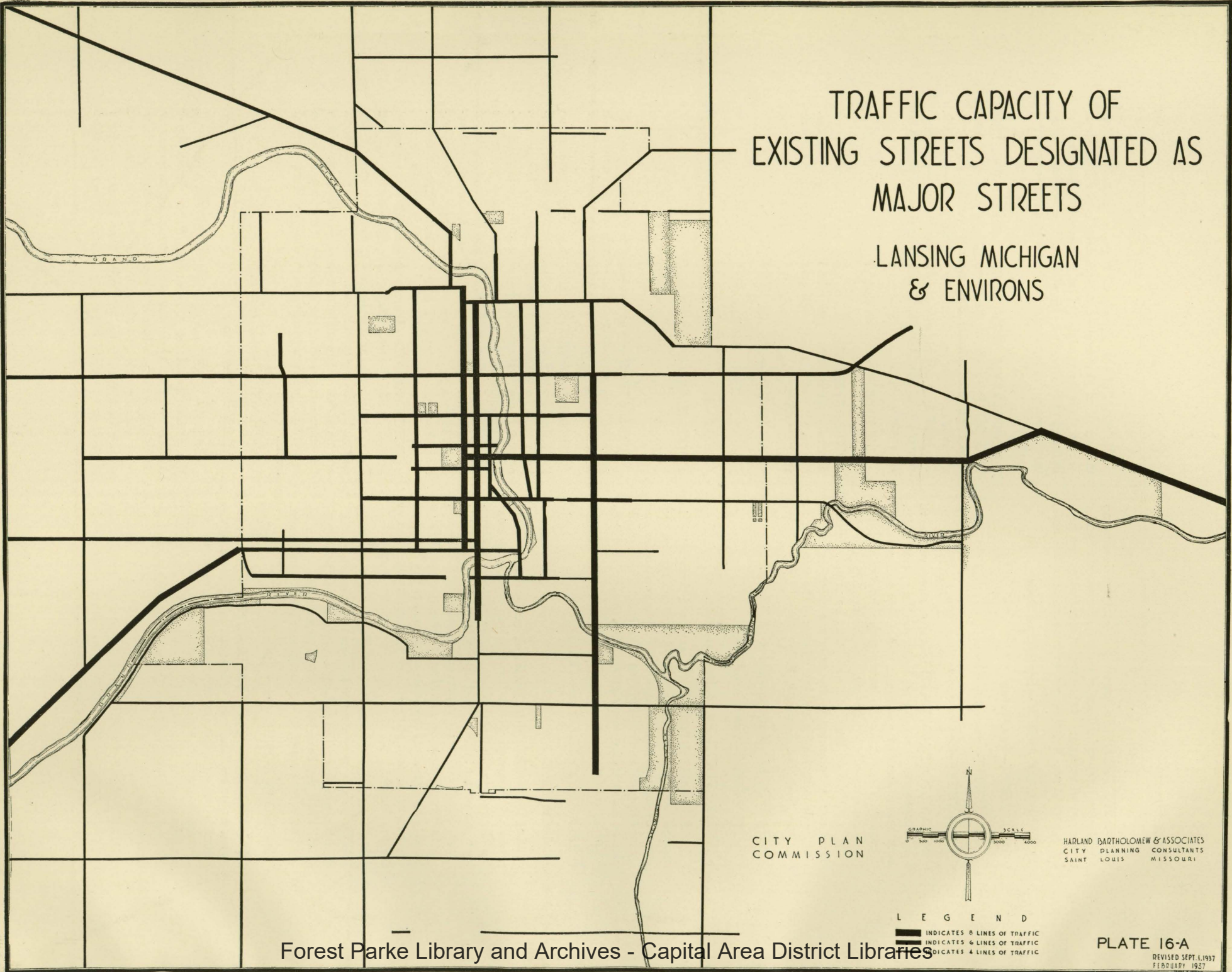
WASHINGTON—See Radials.

WILLARD—See Victor.

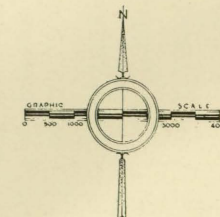
WILLOW STREET AND GRAND RIVER AVENUE—The elimination of the jog between North Grand River Avenue and Capitol Avenue will provide a comparatively direct connection between these two streets. They now carry considerable cross-town traffic and this movement will be facilitated by the proposed improvement. Portions of each street should be widened to 80 feet as indicated on the plan.

TRAFFIC CAPACITY OF EXISTING STREETS DESIGNATED AS MAJOR STREETS

LANSING MICHIGAN
& ENVIRONS



CITY PLAN
COMMISSION



HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS MISSOURI

LEGEND

THICK BLACK LINE INDICATES MAJOR STREETS
THIN BLACK LINE INDICATES MINOR STREETS
DASHED LINE INDICATES PROPOSED STREETS

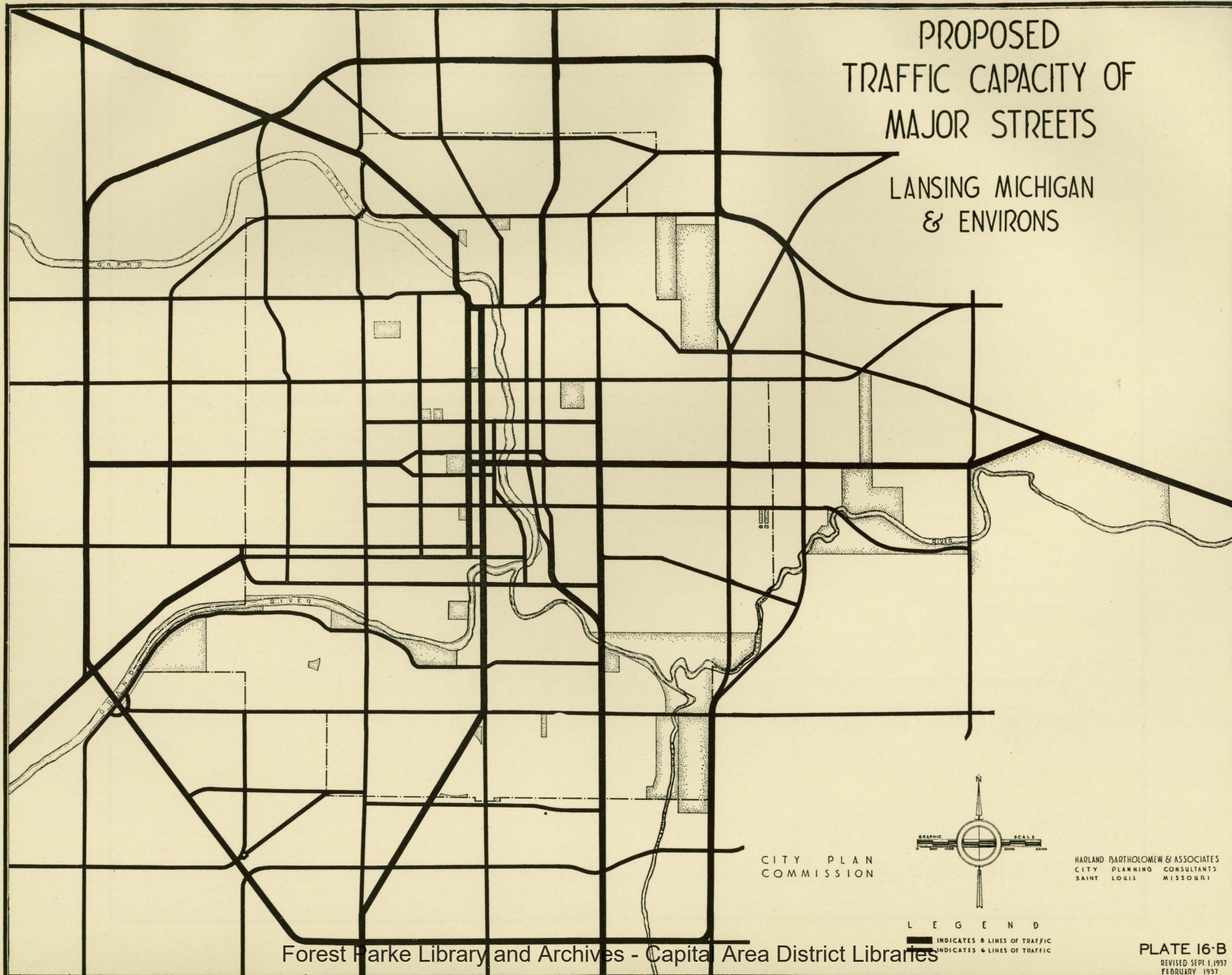
Forest Parke Library and Archives - Capital Area District Libraries

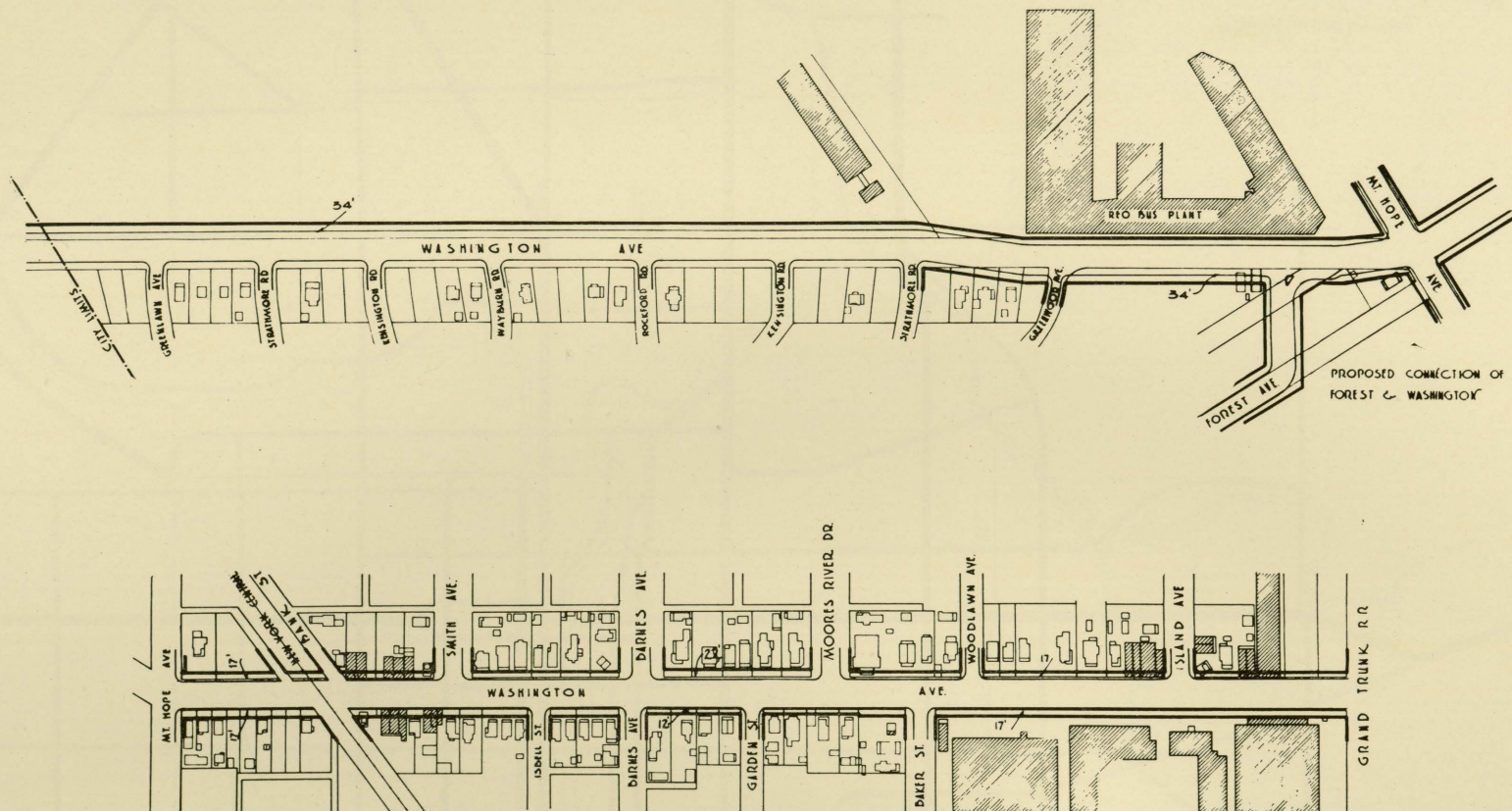
PLATE 16-A

REVISED SEPT. 1, 1937
FEBRUARY 1937

PROPOSED TRAFFIC CAPACITY OF MAJOR STREETS

LANSING MICHIGAN
& ENVIRONS





PROPOSED BUILDING LINES FOR WIDENING OF SOUTH WASHINGTON AVENUE FROM GRAND TRUNK R.R. TO SOUTH CITY LIMITS

STREET WIDENED FROM 66' TO 100'
PAVEMENT SHOWN 76' WIDE

LANSING
CITY PLAN
COMMISSION

CROSSHATCH INDICATE
STONE & BRICK BUILDINGS
GRAPHIC SCALE
0 100 200 300 400

MICHIGAN

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
ST. LOUIS, MISSOURI

PLATE 17
FEBRUARY 1934

Existing and Proposed Street Capacities

Plate 16 graphically shows the existing and proposed capacities of the major street system. The capacity of a street is the number of lanes of moving and parked vehicles that could be accommodated if the pavement were widened to the maximum permitted by the right of way. A width of 10 feet is necessary for each moving lane and a width of 8 feet for each parked lane. Thus, after providing for adequate sidewalk and planting space, two moving and two parked lanes would need a 60 foot street, four moving and two parked lanes an 80 foot street, and a 100 foot street would accommodate six moving and two parked lanes of vehicles. A minimum width of 80 feet is recommended for a major street.

The city now has several wide streets such as East Michigan, Pennsylvania, Capitol and Washington, but the majority of the existing streets that will be included in the major street system now provide for only four lanes of traffic. When there is considerable parking along these streets they will accommodate only two moving lanes and, consequently, they must be widened in order to properly accommodate the volume of traffic that will wish to use them.

Comparison of the two plans clearly indicates the improved ease with which traffic could move in all sections of the city under the proposed system. Each district is served by a wide route connecting directly with the central business district and other sections of the urban area. The importance of the cross-town on this map is quite evident. The strategic location of the 100 foot radials and of the by-pass route is also indicated on the plan.

The ultimate width or capacity of existing streets and the connection and extension of proposed streets can be gradually developed over a long period. Many of the proposed new routes are located in undeveloped area and can be secured in the platting of new subdivisions. The establishment of building lines will facilitate the widening of existing streets. There are also certain improvements that can be made with a very small expenditure that will greatly facilitate traffic movement throughout the city. Included among these are the possibility of widening the pavement on some of these streets

without widening the right of way; the elimination of parking during rush hours, particularly within and near the central business district; the installation of stop signs on minor streets wherever they cross or intersect with major streets; and the painting or otherwise marking of longitudinal lines on pavements so that the vehicles can travel in orderly lanes rather than be scattered over the street. Many drivers straddle traffic lanes so that only one line of traffic is secured where two might be available under the proper channelization.

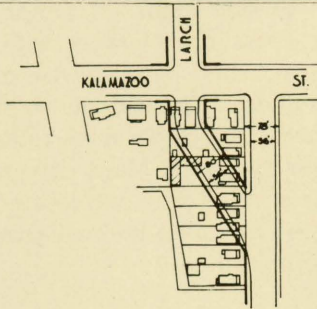
Building Lines on Major Streets

A number of the existing major streets will eventually have to be widened. This is an expensive process whenever buildings adjoin the present street line. If, however, buildings are erected back of the future street line so that the city compensates the owner for only a small strip of unoccupied land and not for damages to expensive structures, the cost is quite nominal. Building line regulations can protect the street until it is actually widened.

Procedure for Adopting Regulations. The establishment and enforcement of building lines is a comparatively simple procedure. The major street plan shows which streets should be widened and their future width. A detailed study regarding existing development, lot depths, topographical and other conditions is then made along each of these streets and the proper location of the future street lines determined. Plans showing the location of the future street lines together with an ordinance providing for their preservation is adopted by the city council.

Enforcement of Regulations. After adoption of the regulations the Building Inspector will not issue permits for any portion of a new structure to be located within the area between the present and future street lines. Buildings now within this area will eventually be replaced and the new structures set back the proper distance.

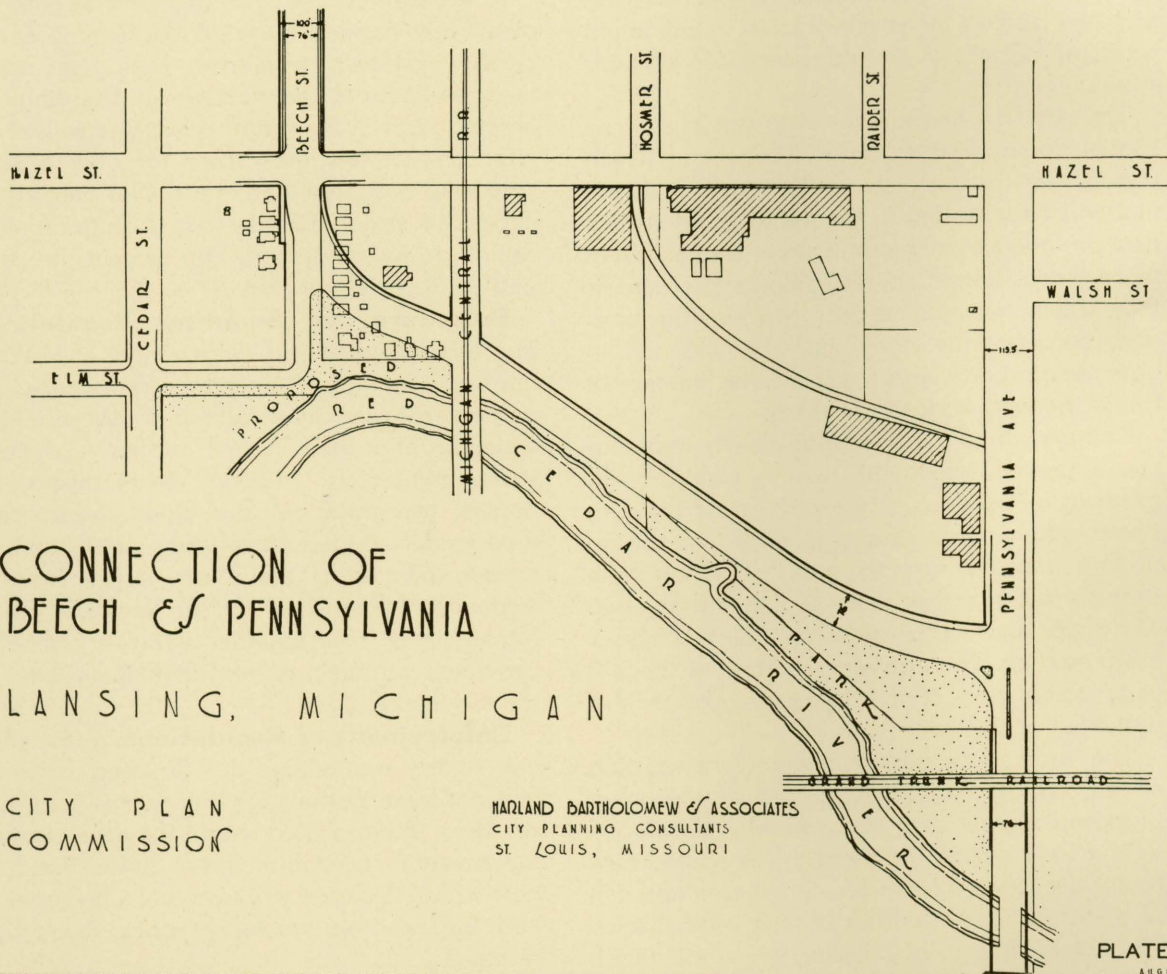
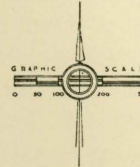
Practically all existing lots have an adequate depth, and setting a structure back ten or more feet will not cause a property owner any loss or inconvenience. To avoid hardships that may arise from unusual conditions, the Zoning Board of Appeals can be given authority to slightly



CONNECTION OF BEECH & LARCH

LEGEND

- FRAME BUILDINGS
- ▨ BRICK & STONE BLDGS.



CONNECTION OF BEECH & PENNSYLVANIA

LANSING, MICHIGAN

CITY PLAN
COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
ST. LOUIS, MISSOURI

PLATE 18
AUGUST 1937

vary the regulations in certain instances so that all property can be put to a reasonable use. Few streets within the city will have to be widened before all, or the majority of the buildings are set back.

Affect Small Number of Structures. Plate Number 17 shows proposed building lines along South Washington Avenue. Only a few buildings now project beyond the future street lines. The regulations merely protect existing conditions and insure maximum returns without imposing any hardships.

Regulations are Legal. Several court decisions have been made sustaining the legality of such regulations. A recent decision by the highest court in the State of New York supported the validity of building line regulations in the city of Rochester, as a logical means of preserving the integrity of the major street plan and of improving the welfare of the citizens.

Program of Improvements

The following is a brief discussion of several proposed improvements which should receive immediate consideration because of their importance in the general scheme of traffic circulation.

1. Extension of Pennsylvania South and Connections to Beech and Larch Streets. It is imperative that this improvement be undertaken at an early date in order that traffic on U. S. Highway Number 127 may have a better route into Lansing than the present use of Cedar Street. The connection to the south, including the viaduct over the Michigan Central Railroad, has been designed by the County Highway Commission. Plate Number 18 shows the details of the improvement necessary to connect Pennsylvania Avenue and Beech Street. None of this proposed route disturbs any existing large structures.

2. Outer By-Pass. The outer by-pass system should be started as soon as possible. As this should primarily be developed by the County and by the State Highway Commission, they should formulate a program of development at an early date. This program could well have the extension of the County Line Road over the Grand River to North Grand River Avenue as its initial step.

The extension and widening of Fairview Avenue is the only part of the by-pass system

that passes through the city of Lansing. Its development has already been the subject of a preliminary survey by the City Engineer and its improvement should be coordinated with the program adopted by State and County Highway Departments.

3. Logan and Alice Street Improvements. Logan Street and Alice Street should be connected in the near future and a new bridge erected over the Grand River at the end of Alice Street. A connection between this bridge and Dewitt Road will also be necessary. No unusual difficulties would now be encountered in making any of these improvements. Logan Street should be widened as soon as possible.

4. Improvements in North Central Section. Three connections in the north central part of Lansing should be undertaken in the near future. Two of these, Pennsylvania to Larch and Capitol to North Grand River Avenue are shown in detail on Plate Number 19.

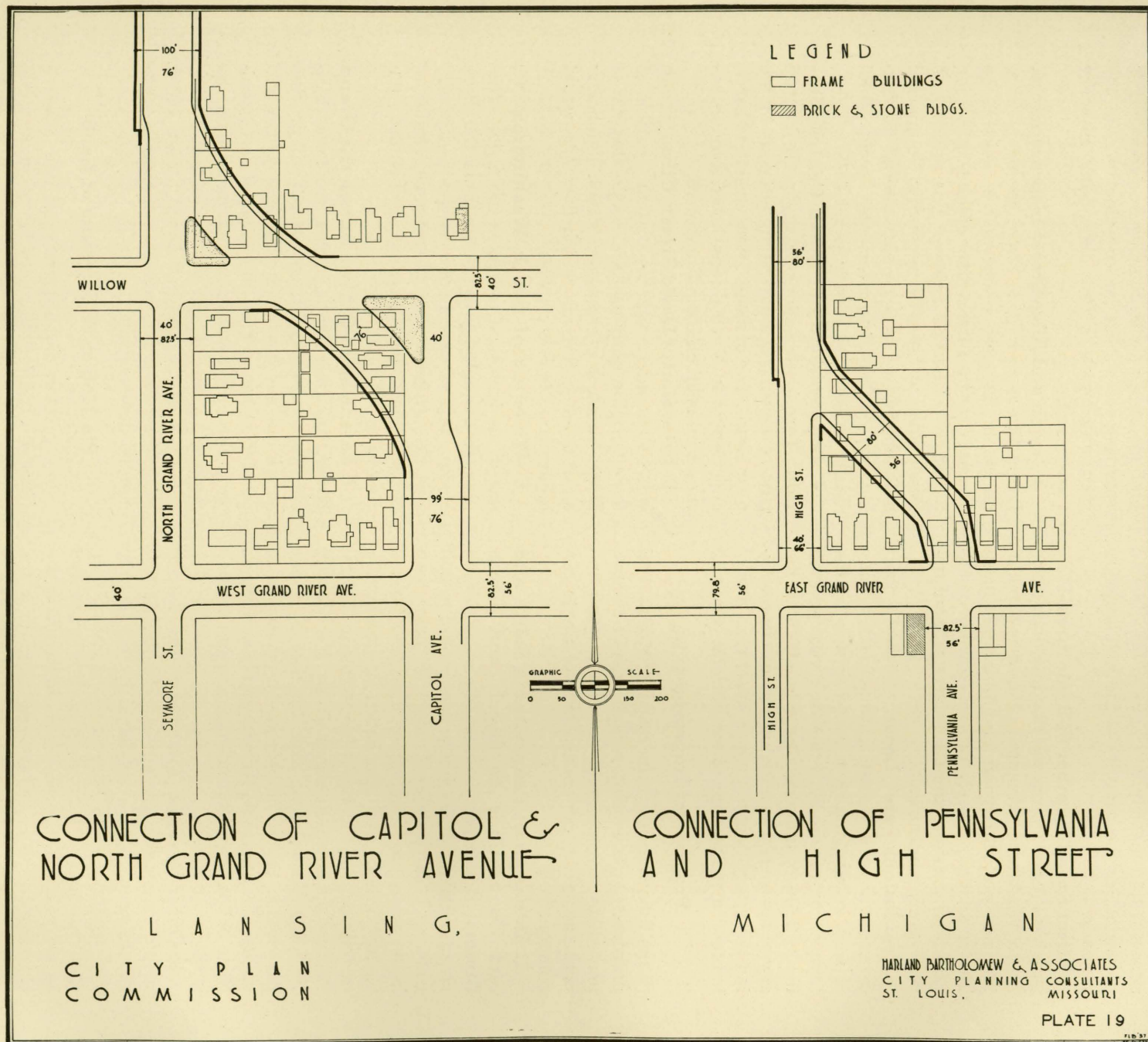
5. Extension of David Street. Urban growth will be encouraged in the northern portion of the city by an early east and west extension of David Street as a cross-town street. Practically all of the area through which the route would be extended is now vacant.

6. Widening of South Washington. As one of the important radials in the major street plan, Washington Avenue south of the Pere Marquette Railroad should be widened to 100 feet. Plate Number 17 in the section on Building Lines shows the physical difficulties encountered.

7. Extension of Ottawa Across the Grand River. The importance of this street was indicated upon the major street plan. It will provide an additional entry into the business district and assist in relieving the congestion on East Michigan. This improvement would necessitate the removal of several old structures that are located between Cedar and Larch Streets but it would provide much valuable frontage for commercial development.

Platting or Subdividing of Land

The platting and improving of new subdivisions will control the character of much of the future urban development. The plan for each subdivision should conform to the proposals of the comprehensive city plan. Since the planning commission is the only agency fully conversant



with the future requirements and plans for the city, it is essential that they have some control over subdivision plans.

In considering new subdivision plats, the commission will be primarily concerned with the following factors:

1. The dedication of the proper width and alignment for proposed major streets.

Many miles of adequate major streets can thus be secured without public expenditures.

2. The arrangement of minor streets.

These should serve local needs and conform to the topography, yet discourage through and fast moving traffic.

3. The width, depth and size of lots.

Narrow lots result in population congestion and invite an early depreciation of property values. There is no scarcity of desirable residential area within and surrounding Lansing, and the average residential lot should not be less than 50 feet wide and 125 feet deep.

4. Provisions for easements and setback lines. Easements should be provided for the location of public utilities, such as water, lights and sewers. Any private restrictions regarding open spaces about structures should be as restrictive as the regulations of the zoning ordinance.

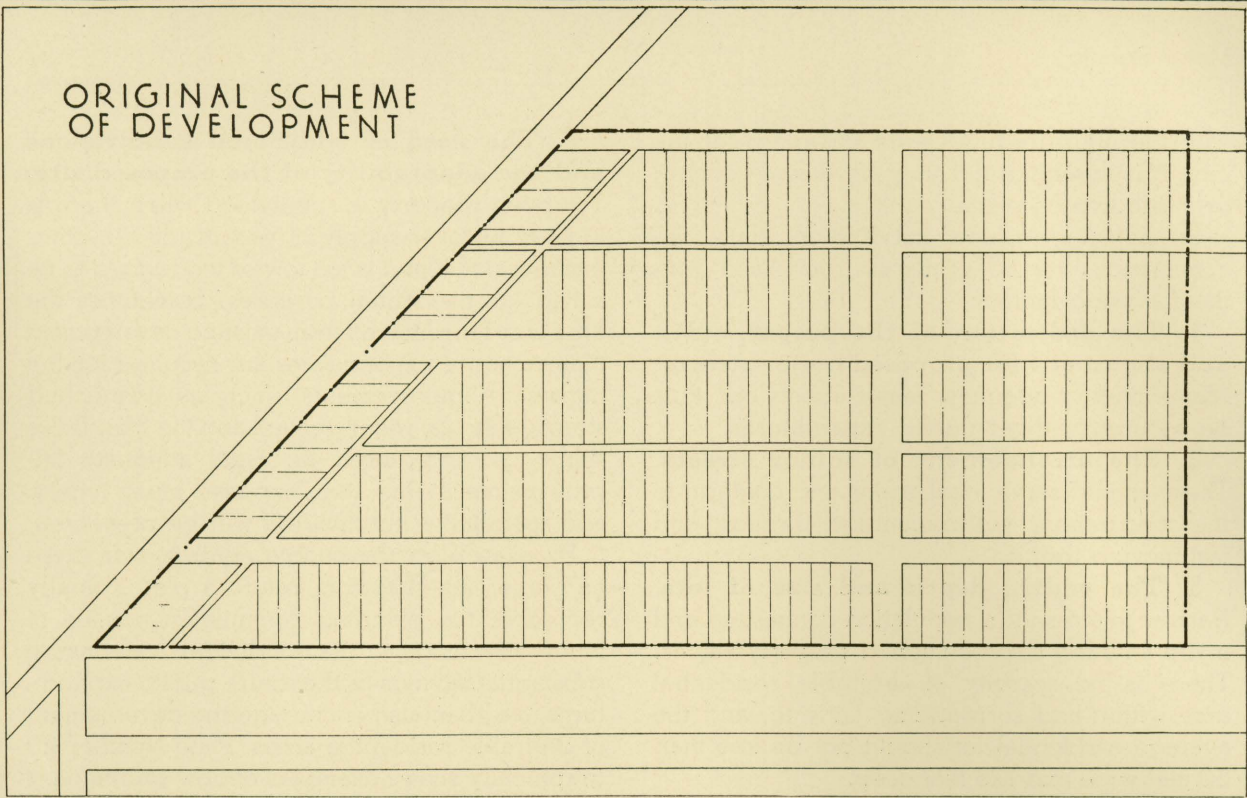
5. The need of additional subdivisions and the adaptability of the proposed site.

Too often property is subdivided when there is already an over-supply of vacant lots. In other instances, the land is too low or too rugged to be suited for residential purposes. Sometimes the area is so far removed from existing development that excessive expenditures are required for the necessary improvements, such as connecting streets, schools, water, sewers and the like. If the subdivider is required to install adequate improvements at his own expense much cheap and speculative subdividing will be prevented.

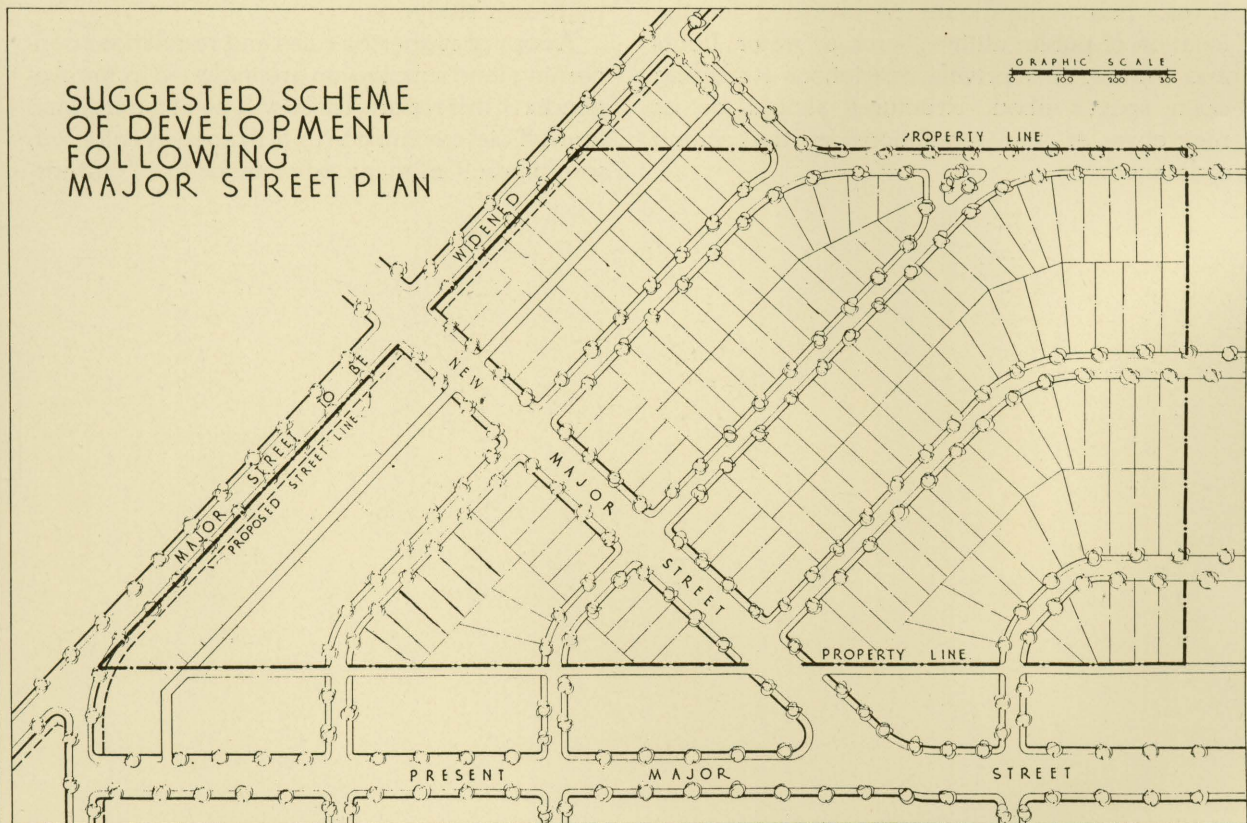
By exercising reasonable control over these and other allied factors before a plat is finally recorded, the planning commission can be of much advantage to the subdivider, can insure substantial savings in the future public expenditures, and can also encourage the development of desirable residential areas. Plate Number 20 graphically shows examples of how preliminary subdivision plats can often be greatly improved by proper study.

A copy of suggested rules and regulations concerning land subdivision are included in the Appendix of this report. These will be of much value to an official commission and, if properly enforced, would result in many advantages to all citizens

ORIGINAL SCHEME OF DEVELOPMENT



SUGGESTED SCHEME OF DEVELOPMENT FOLLOWING MAJOR STREET PLAN



CITY PLAN
COMMISSION
LANSING, MICHIGAN

A TYPICAL DEVELOPMENT
SHOWING PRINCIPLES OF
LAND SUBDIVISION

HARLAND BARTHOLOMEW & ASSOCIATES
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ST. LOUIS MISSOURI

PLATE 20

CHAPTER THREE

Transportation

INTRODUCTION

BOTH railroads and motor trucks provide transportation facilities for Lansing. Many wide and direct routes which could be used by motor trucks in reaching their destination were proposed in the major street plan. This chapter contains plans for the future development of railroad facilities.

Changes have occurred in the use of the physical facilities of city and railroads during the past 15 years. Vehicular traffic has increased and railroad traffic has decreased since 1920. These changes have necessitated separation of the two kinds of traffic where delays and hazards are encountered. In 1920 few people were affected by a large volume of railroad traffic. The situation is reversed today. Automobile registration has increased. Loss of traffic to motor trucks and buses and increase in the size of trains has resulted in a large decrease in the number of trains operating within and through the city.

The objectives of this chapter are (1) to co-ordinate the physical facilities of the railroads so that they will give maximum service with minimum conflict; (2) to coordinate the facilities of different railroads to afford maximum economy and minimum duplication; and (3) to provide for the separation of vehicular and railroad traffic at minimum expense.

Existing Facilities

The city is served by five roads: Michigan Central, Pere Marquette, New York Central, Grand Trunk, and the Lansing Manufacturers Railroad. Plate Number 21 shows how these railroads enter and leave the city, and the territory served by each. The Michigan Central, Pere Marquette and the Grand Trunk handle passenger traffic and the first two named roads use a joint passenger station at Michigan and Larch. The Grand Trunk station is at Washington and South Street. The other lines handle freight only.

The following comparison of the daily through trains over these lines in 1920 and at the present time indicates the change that has taken place.

	Freight Trains		Passenger Trains	
	1920	1937	1920	1937
Michigan Central	30	8	16	4
Pere Marquette	28	6	12	6
New York Central	4	—	2	—
Grand Trunk	30	26	12	8
Total	92	40	42	18

Considerable switching movements also are made over each line. The Lansing Manufacturers Railroad is not listed above, as it is merely a switching line serving the Fisher Body Plant and several smaller industries along the western edge of the city.

Proposed Facilities

Through Traffic. The separation of grades at the intersection of important east-west streets and the Michigan Central Railroad near the center of the city has always presented many difficult problems. In order to simplify these difficulties, it is proposed to utilize the right of way of the New York Central lines between the Grand Trunk on the south and the Pere Marquette on the north for a double track route carrying through passenger and freight trains. This plan requires a connection through a sparsely settled section of the city from the Pere Marquette (near Turner Avenue) to the main line of the Michigan Central north of the city limits. This is shown on Plate Number 22. This route would be used by the Michigan Central and the Pere Marquette.

It is further proposed that the Pere Marquette route be abandoned between Kalamazoo Street and the point where it crosses the Grand Trunk just east of the city limits (Trowbridge) and that its trains be routed over the Grand Trunk

to a connection with the new Michigan Central route at Cedar Street. The Pere Marquette would return to its own right of way at Turner Street.

A slight raise of the tracks at Elm Street will permit an underpass to be constructed. A raise in the tracks of 10 feet at Saginaw will permit that street to pass under the railroad tracks, thus separating the grades without requiring the viaduct across the river to be altered to effect the grade separation. Likewise at East Grand River Avenue the tracks would be raised 10 feet, thus permitting the street to pass under. From this point to the Pere Marquette the tracks would be practically level.

The Grand Trunk will have to be elevated from a point about 500 feet east of the New York Central crossing to a point about 1500 feet west of Washington Avenue. Between these points, Washington Avenue is the only major street, and this would be separated by an underpass. In view of the fact that Pennsylvania Avenue is to be a major street with traffic routed over it into the city from the south side of the Grand Trunk, the present Cedar Street crossing may well be closed. This will favor the new connection between the Michigan Central and the New York Central. It would be possible, however, to carry out the plan as suggested with Cedar Street passing under the Grand Trunk.

This plan has several advantages. The abandonment of the Pere Marquette route in the southeastern part of the city will eliminate separating grades at several points, enable better development of this section of the city, and permit the use of the abandoned right of way as a thoroughfare.

The plan also consolidates railroad main line facilities, thus reducing the cost of maintenance, taxes, etc., of two separate lines. The railroad is kept below street level in the business district, utilizing grade separations already in existence at Kalamazoo, Michigan, and Shiawassee Streets. Because of the grade separations, faster train movements would be possible.

A clear unobstructed view along Michigan Avenue upon approaching the Capitol Building is permitted and it is possible to separate grades at Elm Street, Saginaw and East Grand River Avenue, independently of each other, i.e., each crossing can be separated without affecting the others.

Passenger and Freight Terminals. No practical plan for consolidating the railroad passenger stations into a single station is possible in Lansing. Although there formerly were three stations in use, today only two serve the city—the Grand Trunk and the Michigan Central, the latter being used also by the Pere Marquette. A new passenger depot for Michigan Central and Pere Marquette trains, located in the block bounded by Michigan, Shiawassee and Cedar Streets, and the river is recommended. With the elevation of the Grand Trunk to separate grades at Washington Avenue, either a new station would have to be built or changes made in the present one.

The freight terminal of the Michigan Central under the proposed plan would be moved to the New York Central right of way. A new freight house layout should be provided here with access to Cedar Street, which would serve the needs of the New York Central, Michigan Central, and the Pere Marquette. The Grand Trunk freight house would remain at its present location.

Grade Crossing Eliminations

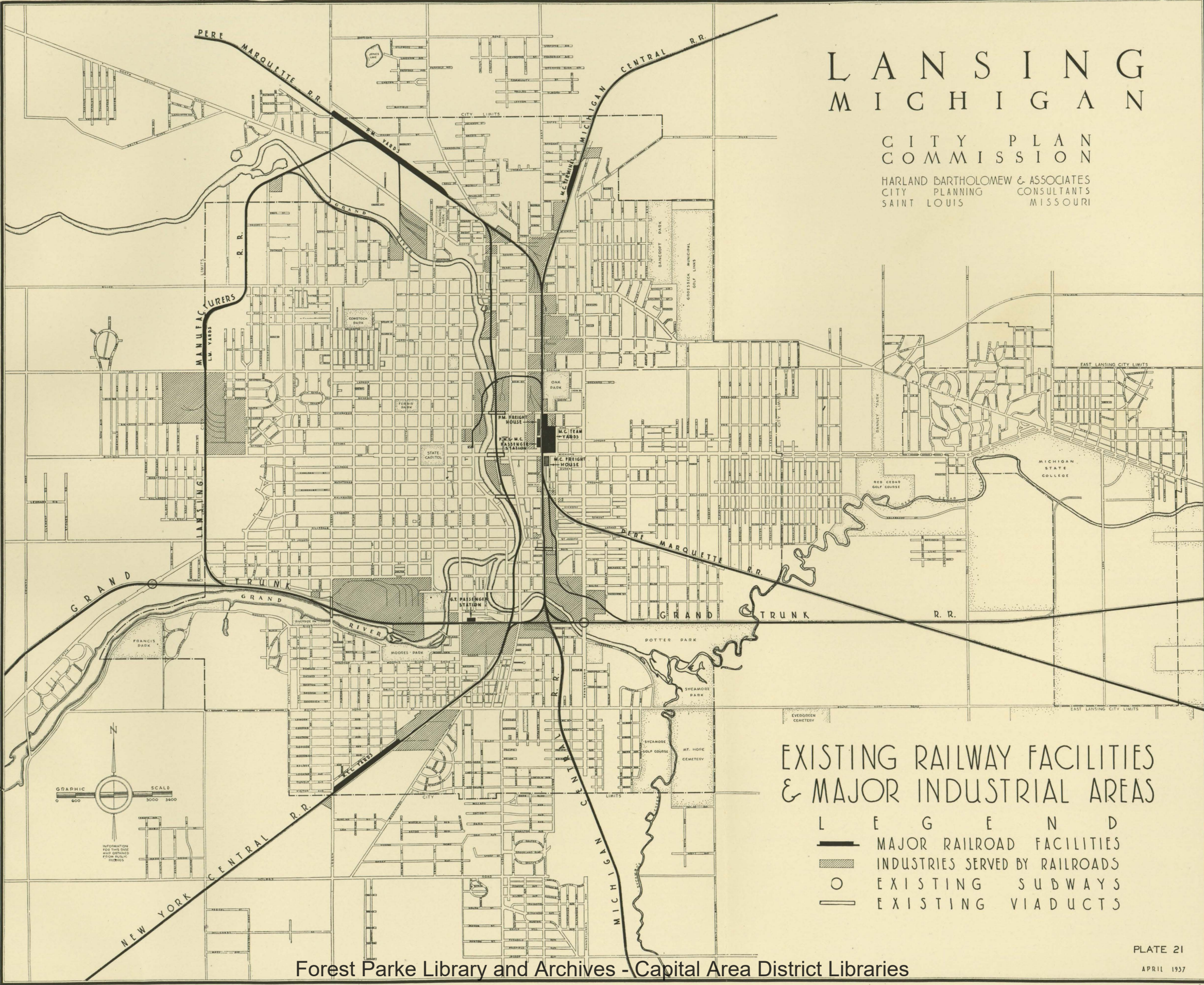
The plan of rerouting all passenger and through freight trains of the Michigan Central and Pere Marquette over the New York Central right of way adjacent to the river will not entirely eliminate the grade crossings along the present Michigan Central right of way between Kalamazoo and East Grand River Avenue. There will remain the local switching movements necessary to service the industries located along this route. While this switching operation frequently causes delays at the crossings, the elimination of the through trains from the route will afford considerable relief from these delays and materially reduce the hazards.

This report recognizes the importance to the City of adequately servicing its industries. In proposing major changes in the existing rail facilities serving the community the plan proposed has kept in mind the need for interfering as little as possible with existing industries, and especially those served by railroads. In the central area the industries are heavily grouped along both sides of the Michigan Central tracks. To attempt to separate grades along this route in the central area would necessitate very

LANSING MICHIGAN

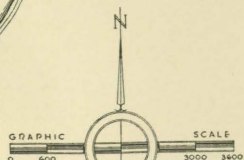
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EXISTING RAILWAY FACILITIES & MAJOR INDUSTRIAL AREAS

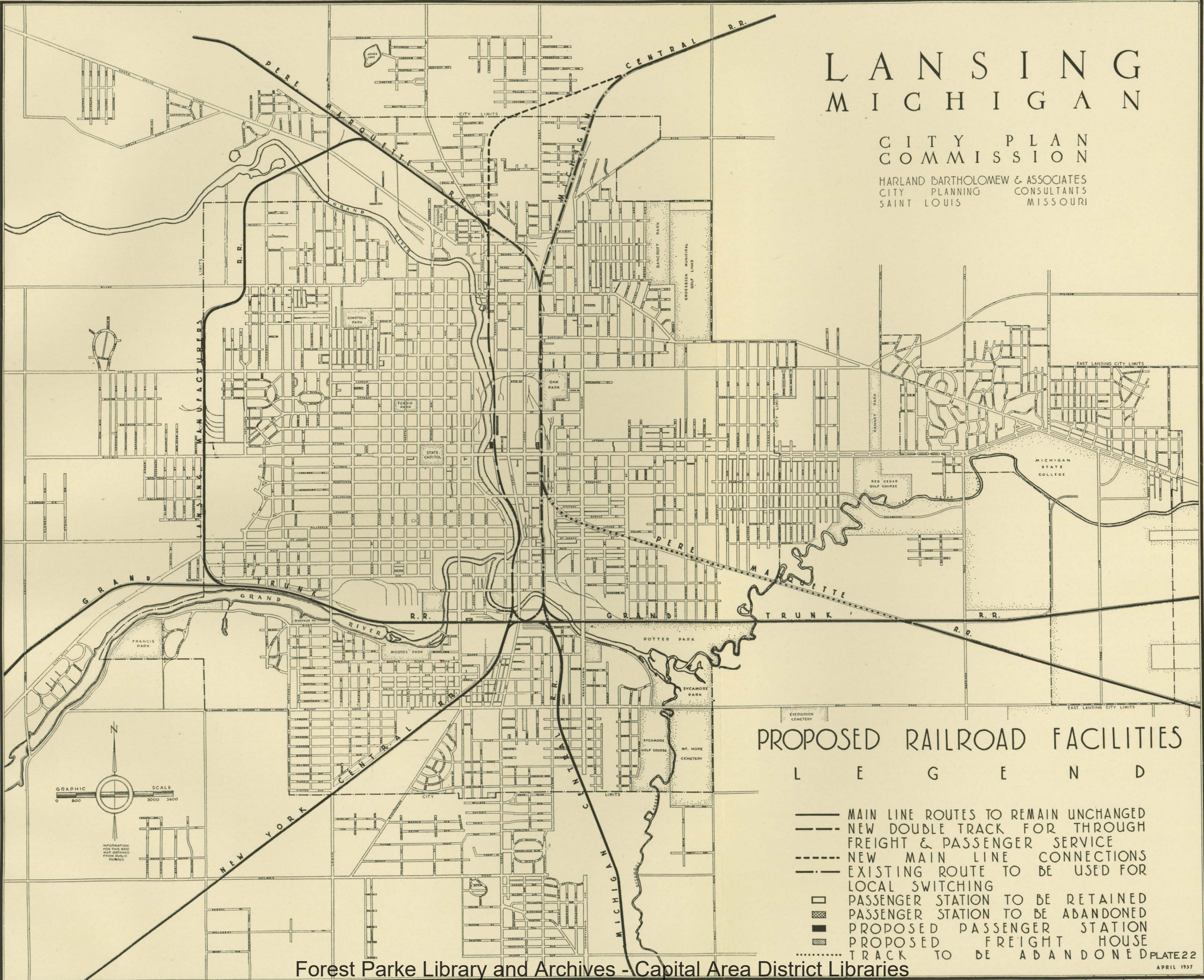
- L E G E N D**
- MAJOR RAILROAD FACILITIES
 - INDUSTRIES SERVED BY RAILROADS
 - EXISTING SUBWAYS
 - EXISTING VIADUCTS



LANSING MICHIGAN

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PROPOSED RAILROAD FACILITIES

L E G E N D

- MAIN LINE ROUTES TO REMAIN UNCHANGED
- - - NEW DOUBLE TRACK FOR THROUGH FREIGHT & PASSENGER SERVICE
- · - · - NEW MAIN LINE CONNECTIONS
- · - · - EXISTING ROUTE TO BE USED FOR LOCAL SWITCHING
- PASSENGER STATION TO BE RETAINED
- ▨ PASSENGER STATION TO BE ABANDONED
- PROPOSED PASSENGER STATION
- ▨ PROPOSED FREIGHT HOUSE
- TRACK TO BE ABANDONED

extensive changes in every industry served, making the cost of the project excessive.

Observations indicate that traffic delays would be reduced and the hazards diminished by restricting this trackage to local switching operations.

To ascertain the extent of the delays caused by the train movements along the Michigan Central route, two recent surveys were made covering the period from 7:00 a. m. to 7:00 p. m. The delays to vehicular traffic caused by railroad operations at these points, as determined from the surveys, are set out in Table Number 4.

Table Number 4.
PERIOD CROSSING IS BLOCKED
BY RAILROAD MOVEMENTS

MICHIGAN CENTRAL RAILROAD AT KALAMAZOO STREET							
February 19, 1937				February 23, 1937			
Time	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.			
7-8 A. M.	0 15	4 15	2 10	9 30			
8-9 A. M.	0 0	5 0	0 5	8 50			
9-10 A. M.	1 10	5 30	2 35	2 10			
10-11 A. M.	2 30	2 35	0 0	0 20			
11-12 A. M.	2 5	0 0	0 0	0 0			
12-1 P. M.	0 0	0 35	0 0	0 10			
1-2 P. M.	2 45	0 0	3 20	0 10			
2-3 P. M.	1 40	0 35	0 0	1 55			
3-4 P. M.	4 20	2 0	0 0	5 0			
4-5 P. M.	0 30	24*	0 6	30 0			
5-6 P. M.	3 10	0 0	0 0	0 0			
6-7 P. M.	4 15	0 35	1 30	7 30			
Total Period	22 40	45 5	16 10	36 20			

*Abnormal—caused by defective brakes.

Table Number 4.
PERIOD CROSSING IS BLOCKED
BY RAILROAD MOVEMENTS
MICHIGAN CENTRAL RAILROAD AT MICHIGAN AVENUE

February 19, 1937							
February 19, 1937				February 23, 1937			
Time	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.			
7-8 A. M.	0 15	4 15	2 10	7 0			
8-9 A. M.	0 0	5 0	0 15	8 50			
9-10 A. M.	3 0	5 30	2 45	1 30			
10-11 A. M.	2 20	3 0	0 0	1 0			
11-12 A. M.	4 30	0 0	0 25	0 0			
12-1 P. M.	0 0	0 35	0 0	0 10			
1-2 P. M.	2 0	0 0	0 50	0 10			
2-3 P. M.	0 40	0 35	0 0	6 30			
3-4 P. M.	3 0	3 20	0 0	5 0			
4-5 P. M.	0 30	35*	0 2	15 0			
5-6 P. M.	1 25	0 0	0 0	0 0			
6-7 P. M.	6 5	0 35	2 0	6 30			
Total Period	23 45	57 50	10 40	37 25			

*Abnormal—caused by defective brakes.

Table Number 4.
PERIOD CROSSING IS BLOCKED
BY RAILROAD MOVEMENTS

MICHIGAN CENTRAL RAILROAD AT SHIAWASSEE STREET							
February 19, 1937				February 23, 1937			
Time	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.			
7-8 A. M.	0 35	6 30	3 45	15 0			
8-9 A. M.	0 5	7 7	2 35	3 30			
9-10 A. M.	5 0	2 30	5 0	2 0			
10-11 A. M.	16 15	3 0	19 40	1 30			
11-12 A. M.	23 30	0 0	7 35	0 0			
12-1 P. M.	3 0	0 35	4 40	0 10			
1-2 P. M.	4 0	0 0	4 0	0 10			
2-3 P. M.	6 0	0 35	3 10	0 35			
3-4 P. M.	3 0	6 30	16 10	4 0			
4-5 P. M.	1 0	5 20	5 40	2 0			
5-6 P. M.	20 0	0 0	42 0	0 0			
6-7 P. M.	3 35	5 0	5 20	8 0			
Total Period	86 0	37 7	119 35	36 55			

Table Number 4.
PERIOD CROSSING IS BLOCKED
BY RAILROAD MOVEMENTS

MICHIGAN CENTRAL RAILROAD AT SAGINAW STREET							
February 19, 1937				February 23, 1937			
Time	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.			
7-8 A. M.	1 0	7 30	1 45	7 30			
8-9 A. M.	0 5	12 42	0 10	6 0			
9-10 A. M.	1 10	2 0	2 0	4 5			
10-11 A. M.	1 20	3 0	1 15	0 5			
11-12 A. M.	5 5	0 0	3 5	0 0			
12-1 P. M.	0 45	0 35	0 50	0 30			
1-2 P. M.	0 30	0 0	0 0	0 30			
2-3 P. M.	0 0	0 35	0 20	0 30			
3-4 P. M.	3 0	5 30	0 30	3 25			
4-5 P. M.	0 0	3 20	0 10	1 0			
5-6 P. M.	1 0	0 0	9 0	0 0			
6-7 P. M.	0 0	0 35	2 30	6 15			
Total Period	13 55	35 47	21 35	29 50			

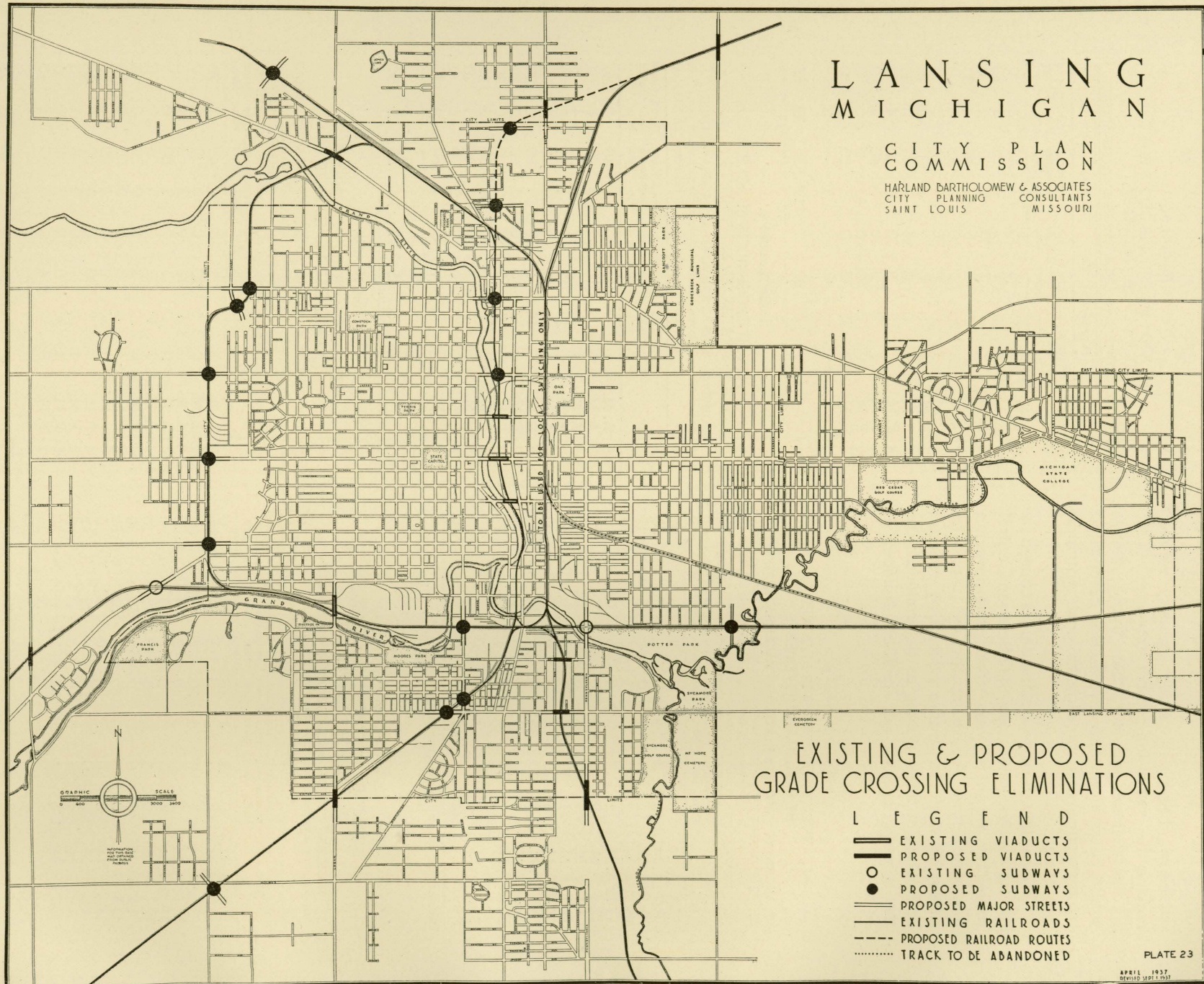
Table Number 4.
PERIOD CROSSING IS BLOCKED
BY RAILROAD MOVEMENTS

MICHIGAN CENTRAL RAILROAD AT EAST GRAND RIVER AVENUE							
February 19, 1937				February 23, 1937			
Time	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.	Switching Movements Min. Sec.	Thru Frt. and Pass. Trains Min. Sec.			
7-8 A. M.	0 5	5 5	1 45	7 30			
8-9 A. M.	0 5	10 0	0 10	6 0			
9-10 A. M.	1 18	12 0	2 0	4 0			
10-11 A. M.	0 0	2 5	0 50	0 5			
11-12 A. M.	2 15	0 0	0 5	0 0			
12-1 P. M.	0 20	0 5	0 0	0 15			
1-2 P. M.	1 0	0 10	0 0	0 15			
2-3 P. M.	1 30	0 0	0 20	0 30			
3-4 P. M.	0 0	15 0	0 30	3 25			
4-5 P. M.	1 0	1 30	0 0	1 0			
5-6 P. M.	4 30	0 0	3 0	0 0			
6-7 P. M.	0 0	4 30	0 30	5 45			
Total Period	12 3	50 25	9 10	28 45			

LANSING MICHIGAN

CITY PLAN
COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS MISSOURI



These tabulations show separately for each street crossing the delays occasioned by local switching movements and those caused by through train movements, both passenger and freight. No surveys were made of the conditions prevailing between 7:00 p. m. and 7:00 a. m. During the greater part of the night, however, vehicular traffic will be greatly reduced and a minimum amount of conflict will result.

While these figures may not be conclusive, they indicate that, with the through traffic removed from this route, the extent of delays will be very materially shortened at all the crossings but Shiawassee Street. At this crossing a large part of the delays from local switching is caused by freight house switch movements. These movements, however, are confined primarily to the morning period (4:00 a. m. to 6:00 a. m.) and will not cause serious interference during the hours when vehicular traffic is heaviest.

The survey disclose that, in the twelve hour period, a total of about 30 switching movements blocked the Shiawassee Street crossing for a total of about two hours. Eliminating the delays caused by freight house switching, the majority of delays were less than two minutes each,

with many less than one minute. In contrast with the delays caused by the switching movements, the through freight trains blocked the crossings up to seven minutes on individual movements.

Thus, if the through traffic and freight house switching can be transferred as proposed to the New York Central right of way where no grade crossings exist, a large part of the traffic problem at crossings of the Michigan Central will be eliminated.

If, after the changes recommended in this report are put into effect, conditions along the Michigan Central are still found to be a cause of constant delay and danger, the hours of switching could be restricted to periods of light street traffic.

Plate Number 23 shows the crossings to be eliminated as well as the existing separated crossings. Not all the proposed grade separations need be included in any single program. The purpose of the plan is to indicate the locations where it is believed future traffic conditions will require separating the grades, and also to suggest the manner in which the separations may be effected.

CHAPTER FOUR

Land Uses and Zoning

INTRODUCTION

THE complexity of modern urban existence is reflected in the numerous uses of buildings and land found within any large city. During the greater portion of the development of American cities it was thought that people could use their property as they pleased without ill effects. Within the last several decades, however, it has been discovered that the free and untrammelled use of a city's land has a markedly deleterious effect upon the city's welfare.

Land uses cannot be indiscriminately intermingled. Residential areas soon become undesirable if large apartments, stores and industries are scattered throughout, and residents move to other sections of the city where more desirable living conditions can be obtained. Property values depreciate in older areas and less municipal income (taxes) is obtained therefrom. At the same time, large expenditures for public improvements are necessary in the new area to which the citizens move. Thus, while a few individuals may gain from unrestricted uses of urban land, the large number of citizens suffer direct loss by depreciation of their property, higher taxes and less satisfactory living conditions.

A city systematically developed offers greater attraction to the home seeker than a city that is haphazardly developed. The one compares to the other as a well-ordered department store compares to a junk yard. If such regulations stabilize the value of property, promote the permanency of desirable home surroundings and add to the happiness and comfort of the citizens, they thereby promote the general welfare.

It is not uncommon to witness efforts of promoters to preserve the residential character of subdivisions by placing covenants in their deeds restricting the use of the property, and sometimes even requiring the erection of a home according to specified standards.

Only a small portion of the average city is protected by private covenants or deed restric-

tions and these restrictions do not always consider the general needs and welfare of the entire city. It has, therefore, been necessary that the public welfare be protected by regulatory measures controlling the different uses of land in order that one use will not harm another to the detriment of the city as a whole.

These regulatory measures are known as zoning ordinances. They are concerned with land and buildings and include three major types of regulations: (1) restrictions regarding the **use** of land and buildings; (2) restrictions controlling the maximum **height** of the different structures; (3) regulations regarding **area** or the amount of open space that must be provided around the buildings in the form of front, side and rear yards, as well as the amount of lot area to be provided for each living unit.

In brief, a zoning ordinance is a municipal regulation to preserve and promote the welfare of the citizens. It directs use and intensity of the use of land into a designed pattern, in which each building—industry, store, apartment, etc.—is located to greatest advantage. Each piece of property can perform its logical function. The city thus becomes a well organized unit affording maximum advantages.

Certain trends and conditions have made it practical to revise the present zoning ordinance passed in 1927. Among the more important reasons for revisions are: (1) Land uses should be coordinated with future development of the physical facilities as proposed in the present city plan. (2) Study and investigation have indicated a close relationship between areas of different land uses and units of population. That is, 100 persons will absorb a certain acreage for residential, commercial, industrial, and public and semi-public purposes. The area necessary to accommodate the future land uses in Lansing should be analyzed in accordance with the estimates of future growth. (See Chapter One.) (3) Much technical advancement has been made in the drafting of zoning ordinances.

For example, the modern ordinance is accompanied by only one map, whereas the earlier ordinances had one map showing use districts and another showing height and area districts. The Lansing ordinance should be revised to include as many modern practices as possible. (4) Finally, many unnecessary changes have been made in the Lansing ordinance which tend to destroy the comprehensiveness of the plan. Many changes have been made that benefit individuals rather than promote the welfare of the entire city.

No radical or widespread changes are proposed in the new ordinance. Existing property values and uses have merely been further protected and minor corrections made in accordance with probable future growth.

Existing Conditions

The state enabling act giving Lansing the power to adopt and enforce zoning regulations, provides that, "Such regulations shall be made in accordance with a plan designed to lessen congestion on public streets, to promote public health, safety and general welfare, and shall be made with reasonable consideration, among other things, to the character of the district, its peculiar suitability for particular uses, the conservation of property values and the general trend and character of building and population development."

Factual data must be compiled regarding the above factors, especially data regarding existing land uses, building heights, and lot areas for these are the three types of regulations included in the ordinance. A thorough study of these existing conditions will show the character of all neighborhoods and indicate the probable future needs of the city.

To compile such data, a land use survey was made of the entire city early in 1937. Each piece of property was inspected and the use of the property and height of structures located thereon was recorded on large scale maps. Other pertinent data was also obtained. This data was then transferred to prints of the base map which, by means of different colors, give a graphic picture of existing conditions.

Use. This survey indicates that the city is compactly developed and that most of the vacant area is found near the city limits. Nearly

one-fourth of the total city area is now vacant and can accommodate a considerable population increase. Single-family dwellings occupy a much larger area than any other use and ample provision should be made for their development in the future. The commercial and apartment development occupies a very small portion of the city's area when compared with other uses such as single-family dwellings and public and semi-public properties.

Haphazard and illogical mixtures of land uses are found within the majority of the city. A surprisingly small number of blocks are devoted to a single use. The scattering of commercial structures is especially bad. Only in a few instances are they grouped into compact shopping districts. Even on East Michigan Avenue, stores are scattered and a large amount of frontage either is vacant or is used for residential purposes. Scattering of industries and stores destroys the character of residential areas and depreciates property values.

Apartment buildings are generally found in the older residential sections. They are widely scattered and no one block is completely developed with apartments. Apartments are found in nine per cent of the blocks accommodating them. Many of these apartments are acting as parasites deriving much of their value from the light, air and other environmental features provided by the surrounding one and two family dwellings.

As in practically all other cities, public and semi-public uses form no particular pattern but are located throughout the city. The majority of these uses are churches and schools and are necessary adjuncts to residential districts. A large area is utilized by parks.

Lansing has a number of large industries such as the Olds Motor Works and the Fisher Body Plant. These occupy considerable area and it is essential to provide similar large tracts for future development. Such areas must have access to railroad facilities.

The construction of urban development in the western portion of the city by the Belt Line Railroad and its attendant industries was clearly evident from the survey. This area is not experiencing any rapid industrial development and the size of the industrial zones should be kept as small as possible to encourage residential growth.

There is an unwarranted scattering of small light industries throughout residential districts. These are predominantly small industries representing only a small valuation, yet are extremely objectionable to surrounding residences.

Height. The taller buildings are confined to a few blocks near the center of the central business district. It is important to note that even in this district, only a few structures are more than three stories in height. The business district is spreading over a fairly large area and it is very improbable that tall buildings will ever be developed throughout. The majority of the apartments are three stories or less, only two apartment buildings being over three stories. The industrial development likewise contains few buildings over three stories in height.

Density. Studies were made showing the lot area per family according to classification of all existing residential structures.

An unusually spotty and scattered development with no large areas wherein there is a uniform lot area prevails. Individual blocks often contain three or four different classifications. This condition does not stabilize the character of residential areas, and makes it exceedingly difficult to adopt uniform regulations of a desirable standard.

A large number of the residences in Lansing are built upon lots that are too small—5000 square feet per family is considered the acceptable minimum. These small lots predominate

in the outlying sections, particularly in the eastern portion of the city. There is no scarcity of suitable land for residential purposes and no reason why larger lots cannot be provided for all persons. While there are a large number of spacious lots, many containing more than 7000 square feet per family, they are widely scattered.

While the original city was platted with large lots, a large number of these have been resubdivided. Many of these resubdivided lots are not only too small, but are also of bad shape (33 x 165). These long narrow lots mean crowded buildings and waste space in the rear. Only in exceptional conditions should a single-family dwelling be located upon a lot that is less than 40 or 50 feet in width. Larger lot area requirements in the zoning ordinance and additional subdivision control are needed in Lansing.

Statistical Information

Data regarding the area occupied by the different land uses within the city is presented in the following series of tables. Where possible, it has been compared with similar data from twenty-two other American cities. The tables give a complete factual analysis of existing land uses. They reveal important facts regarding existing conditions and assist in visualizing future requirements.

Table Number 5.
AREAS OCCUPIED BY EXISTING LAND USES

USE	PERCENT OF TOTAL CITY AREA			PERCENT OF TOTAL DEVELOPED AREA	
	Area in Acres	Percent in Lansing	Average Percent in 22 Cities	Percent in Lansing	Average Percent in 22 Cities
Single-Family Residence	1962.4	25.62	21.80	35.26	36.10
Two-Family Residence	116.1	1.52	1.29	2.09	2.10
Multiple Dwelling	36.1	.47	.69	.65	1.09
Commerce	131.2	1.71	1.44	2.36	2.38
Light Industry	198.1	2.59	1.99	3.56	3.21
Heavy Industry	344.8	4.50	1.68	6.20	2.70
Public and Semi-Public	465.3	6.07	4.49	8.36	7.61
Parks and Playgrounds	535.2	6.99	3.98	9.62	6.33
Railroads	192.9	2.52	3.16	3.46	5.50
Streets and Alleys	1582.9	20.20	20.66	28.44	33.60
Total Developed Area	5565.0	71.19	60.66	100.00	100.00
Vacant Area	1899.3	24.80	39.80		
River Area	195.2	2.55			
Total City Area	7659.5	100.0	100.0		

(DATA FROM URBAN LAND USES, HARVARD CITY PLANNING STUDIES, VOLUME 4).

Existing Land Uses. Table Number 5 shows the areas occupied by existing land uses. This is compiled into two percentages—one column for the total developed area and one for the total city area. These percentages are compared with the average of twenty-two other American cities.

Single-family residences utilize more than fifty times the area occupied by apartments and nearly three times as much land as is used by industry and railroads combined. Only a small area is occupied by apartments and the provisions for this use should be kept within reasonable limits. The area occupied by commercial uses is similar to such areas in other cities and represents only a small proportion of the total development. In general, the percentages of land use areas in Lansing are similar to those in other cities. Heavy industry and public and semi-public uses are the major exceptions.

There is a large amount of vacant land within the city which should be developed and absorbed before the area outside the city limits is subdivided. This is the only method whereby the present compact growth can be extended.

Apartment Structures. Table Number 6 shows a detailed analysis of apartment development. For the purposes of this survey apartments were considered to be structures containing living facilities for three or more families. Slightly more than 62 per cent of the present apartment buildings provide a lot area of over 1000 square feet per family which area is now considered to be a proper minimum. Only 13.8 per cent have a lot area of less than 600 square feet per family. This lot area is generally considered an absolute minimum, even in the

larger cities. Under a regulation of 600 square feet per family, an area of one square mile improved with the necessary streets would accommodate more than 100,000 persons.

The low average number of buildings per block (2) and the low average number of units per building (5) should also be noted.

Table Number 7.

EXISTING COMMERCIAL DEVELOPMENT

(a) Area occupied.....	131.20 acres
Percentage of total developed area.....	2.36
(b) Number of stores.....	1,379
(c) Total number of lineal feet of commercial frontage.....	51,216 feet
(d) Average frontage per store.....	37.1 feet
(e) Lineal feet of commercial frontage in the central business district.....	13,454 feet
(f) Average frontage per 100 persons in central business district.....	16 feet
Average in 22 cities.....	28 feet
(g) Lineal feet of frontage outside central business district.....	37,762 feet
(h) Average frontage per 100 persons outside central business district.....	45.3 feet
Average in 22 cities.....	35.7 feet
(i) Average frontage per 100 persons for entire city.....	61.3 feet
Average in 22 cities.....	63.7 feet

Commercial Structures. Table Number 7 contains detailed factual data regarding commercial structures. Complete data concerning existing and probable future commercial development is essential in formulating regulations for commercial zones.

Investigations in other cities have revealed a definite relationship between urban population and the amount of commercial development that it will support. This is usually expressed as lineal feet of commercial frontage per 100 persons. In the majority of cities investigated it was found that the average ratio was approxi-

Table Number 6.

LOT AREA PER FAMILY IN EXISTING APARTMENT DEVELOPMENT

Lot Area Per Family	Number of Apartment Buildings	Percent Total Apartment Buildings	Number of Living Units	Area Occupied (Acres)	Average Lot Area
3000 sq. ft. or more	24	10.0	77	7.36	4,110
2000 to 2999 sq. ft.	33	13.8	121	6.52	2,311
1500 to 1999 sq. ft.	28	11.7	114	4.49	1,676
1000 to 1499 sq. ft.	64	26.8	289	8.20	1,220
600 to 999 sq. ft.	57	23.9	325	6.31	832
400 to 599 sq. ft.	27	11.3	248	2.41	418
Less than 400 sq. ft.	6	2.5	117	.75	240
	239	100.0	1,291	36.04	1,544

AVERAGE NUMBER OF BUILDINGS PER BLOCK—2
 AVERAGE UNITS PER BUILDING —5
 BLOCKS OCCUPIED —120 (9 PERCENT OF TOTAL NUMBER OF BLOCKS)

Table Number 8.
NEW BUILDING PERMITS—1926 to 1936
LANSING, MICHIGAN

USE	Number	Percent Total Number of Permits	Value	Percent Total Value	Average Cost Per Unit
One-Family	2066	82.05	\$9,105,000	40.2	\$4,407
Two-Family	50	1.98	160,000	0.7	3,200
Multiple Dwellings	16	.64	461,000	2.0	28,812
Commercial	358	14.22	6,788,000	29.9	18,900
Industrial	28	1.11	6,157,000	27.2	219,800
Totals	2518	100.00	\$22,671,000	100.0	

mately 64 lineal feet of commerce per 100 persons. Table Number 7 indicates that the ratio is almost exactly the same in Lansing.

The total commercial ratio can be further divided into a ratio for the central business district and a ratio for neighborhood shopping districts. A commonly accepted ratio for the latter type of development is 35 to 45 lineal feet of commerce per 100 persons. Since the zoning ordinance will control the maximum distribution and density of population through the use and area regulations, these ratios provide a most valuable means of determining the amount of commercial area that should be provided. If an excessively large area is zoned for commerce, much of it will stand vacant because no one will wish to develop a residence within a commercial zone. A scattered and shabby commercial district will also result.

The above table (Number 8) shows that during the past ten years, new single-family residences represented a larger investment than

any other single type of construction in Lansing. It indicates economic advantages to be gained by protection of this investment.

Probable Future Needs

Maximum advantages can be obtained from zoning only when the provisions of the ordinance are properly related to future needs. This is especially true of the amount of land provided in the different use districts. If an excessive area is zoned for industry, commerce, or apartments, it will never be completely absorbed for those uses, and at the same time, will not provide desirable locations for single or two-family dwellings. As a result a large amount of land will remain idle; property values will not be properly stabilized; an unnecessary amount of public improvements, particularly paving, sewers and water system, will be installed and the major advantages of zoning will be defeated.

Table Number 9.
EXISTING AND PROBABLE FUTURE LAND USE AREAS

USE	Area Occupied in Lansing in 1937	Acres per 100 Persons in Lansing 1937*	Acres per 100 Persons Average of 22 Cities.	Area Estimated to be occupied in Lansing in 1960**
Single-Family Residence	1962.4	2.350	2.940	2600.0
Two-Family Residence	116.1	.139	.143	160.0
Multiple Dwelling	36.1	.043	.076	50.0
Commerce	131.2	.157	.179	175.0
Light Industry	198.1	.237	.236	260.0
Heavy Industry	344.8	.413	.217	460.0
Public and Semi-Public	465.3	.557	.622	610.0
Parks and Playgrounds	535.2	.641	.479	750.0
Railroad Property	192.9	.230	.436	200.0
Streets and Alleys	1582.9	1.890	2.820	2200.0
Total	5565.0	6.657	8.148	7465.0

*ESTIMATED POPULATION, 1937-83,500.

**ESTIMATED ULTIMATE POPULATION WITHIN PRESENT CITY LIMITS—110,000.

There is a definite relationship between the population in a city and the amount of area that it will absorb for various uses. Studies indicate that amounts and percentages of land used for various purposes in Lansing are similar to other cities. It is thus possible to closely estimate the area that will be necessary to accommodate the various urban uses of the future city. Table Number 9 contains such data. The future areas are based upon the assumption that 100 persons will continue to occupy approximately the same area for various uses.

It is evident that Lansing is much more compactly developed than the average American city. In Lansing, 100 persons use only 6.6 acres for different uses, while in 22 other cities, 100 persons occupy an average of 8.2 acres for the same uses. While this may be economically advantageous, excessive congestion which would tend to destroy the residential character would result in the residents moving to new and more spacious areas.

In the proposed zoning ordinance, the areas of the various use districts should closely approximate the areas which Table Number 9 indicates will be absorbed by the future population. It should be remembered that considerable future growth will occur beyond the present city limits, and that the majority of this future growth will be occupied by single-family dwellings. The more intensive uses such as apartments and industry should be primarily confined to the older areas of the present city.

Comparison of Proposed and Existing Ordinances

The proposed ordinance divides the city into ten zones. Several of the zones have similar use requirements, but height and area regulations are different.

The present ordinance has but one use district for both single-family and two-family dwellings whereas the proposed ordinance provides a separate district for two-family dwellings and two districts for single-family dwellings. The major difference between the two single-family districts is in the lot area requirements, one district requiring 5000 square feet per family and the other 4000 square feet per family. The highest lot area requirement in the present ordinance is 3904 square feet per family. A

large portion of the existing residences are, however, now located on lots of more than 5000 square feet. The spacious character of this development should be protected and extended.

The apartment zones closely approximate the regulations of the present ordinance. The height and lot area regulations have been made uniform throughout all apartment districts instead of varying in certain districts as in the present ordinance. In several instances, the lot area requirements have been increased to insure a more uniform use of land and to avoid population congestion. The area in the apartment zones has been slightly reduced in the proposed ordinance but only in those locations where there has been no tendency to develop new multiple dwellings.

The proposed ordinance also provides more commercial districts than the present ordinance, the difference between them being in the height and yard regulations. The boundaries of the commercial zones are similar to the original zones of the present ordinance. It was impracticable, however, to include all of the subsequent changes, for many of these were made with little regard to a comprehensive plan or the needs of the entire city.

The regulations of the proposed industrial zones are practically the same as the regulations in the present ordinance. There have also been very few changes in the boundaries of these districts. A few of the districts near the center of the city have been expanded and some of the outlying districts have been constricted, for example, the area near the Grand Trunk Railroad in the southeastern part of the city. There has been no trend whatsoever toward new industrial development in the zones that were reduced in size.

There have also been a few minor changes made in some of the general regulations of the ordinance. For example, the duties of the Board of Appeals are simplified and a somewhat different procedure is provided for changes and amendments. The new ordinance provides that the City Plan Commission shall report upon any change before it is officially adopted by the City Council. The Plan Commission should be continually studying the trends of growth and future needs of the city and can give valuable suggestions regarding the desirability of any proposed changes. All of the variations

in the proposed ordinance are in accordance with the more modern zoning practices.

Description of Proposed Districts

Residence. The most restricted area is the "A" Residence District. Only single-family dwellings, schools, golf courses, and truck gardens are allowed. This district is primarily confined to the outlying sections of the city where the land is either unsubdivided or contains large lots. A minimum lot area of 5000 square feet is required. While certain lots within this district now contain a smaller area, the ordinance provides that any lot of record at the time of passage of the ordinance can be used even though it contains less than 5000 square feet.

A considerable portion of the city is placed in the "B" Residence District. The regulations in the "B" District are very similar to the "A" District except that churches are permitted and a lot area per family of only 4000 square feet per family is required.

The "C" District permits two-family dwellings in addition to the uses permitted in the "A" and "B" Districts. While much of the development within this district is older than in the outlying sections, it contains many desirable homes. Single-family dwellings will always be the major use within the area but two-family dwellings would permit a more intensive use of the land without adversely affecting the existing character. Institutions of an educational or religious character are also permitted in this district.

Apartments. The "D" District surrounds the central business district and also adjoins certain of the major industrial areas. The majority of the existing apartments are found within these areas. They will also permit a more intensive use of land that now has a higher assessed valuation, and will serve as a buffer between the more objectionable use districts and the restricted residential areas.

An area of 225.2 acres is included in the proposed apartment zones. If the existing ratio between population and apartments (.043 acres per 100 persons) continues in the future, this area would serve a population of 525,000. If the area were to be developed with the minimum density regulations permitted under the ordinance (1000 square feet per family),

it would accommodate 9800 families. There are now only 1439 apartment suites within the city. The proposed district is entirely ample for all future needs. To zone additional territory for apartments would only invite scattered development and depreciate existing residential character and value. It should be noted that the apartment-shop district will also accommodate a large number of apartments.

Industry. The industrial districts are located along the railroads. They utilize land which is well adapted for manufacturing plants but which is rather unsatisfactory for residences. Industry now occupies an area of 542.9 acres and the proposed ordinance provides for about twice this area (1047.9 acres) in the industrial zones. This area should be ample to care for future needs. Particular care was taken to provide large districts so that several tracts would be available which could accommodate large industries. Construction of new residences should not be permitted in the "I" Heavy Industrial zone for two reasons: (1) residences built in areas zoned for heavy industry are usually of poor character and do not insure desirable or healthful living conditions; (2) the increase in the value of land created by such residential improvements puts an unnecessary difficulty in the way of acquiring property for industrial purposes. It might keep an industry from locating in Lansing or force it into an unfortunate location.

Commerce. An adequate shopping center should result from the proposed zoning in the central business district. It contains 26,480 feet of commercial frontage in comparison with 13,454 feet now used. The height regulation permits six stories at the street line but the building may be erected to a greater height if it is set back above the sixth story. This arrangement would permit large structures, yet insure light and air reaching the smaller adjoining buildings. The proposed zoning should also tend to secure a more balanced and uniform utilization of land within the central area and should stabilize property values. It should be remembered that the majority of the existing commercial buildings do not exceed three stories in height. A height limitation of six stories at the street line is most reasonable.

The remaining commercial districts are distributed throughout the city as neighborhood

shopping centers. Several general principles were followed in selecting the location of these districts. First, well established centers were selected and provisions made for their future growth and expansion. Second, an attempt was made to locate the centers about one-half mile apart. Experience has indicated that the population will walk about one-fourth mile to reach these shopping areas. Third, major street intersections were selected as commercial centers wherever possible. The major street plan recently presented was used as a guide in making this study. Fourth, much study was given to the relationship between commercial frontage and probable future population. The size of the shopping centers and the residential district which they will serve are so related that between 35 and 45 lineal feet of commercial frontage will be available for each 100 persons. The proposed districts contain 50,010 lineal feet of frontage which, at the ratio of 45 feet per 100 persons, would serve a population of about 111,100. In addition to the proposed centers, it should be remembered that considerable commercial development will be found in the industrial districts. In general, the commercial provisions are quite liberal. To zone a large additional area for this purpose would mean that it could never be completely absorbed for

stores, no one would desire to use it for residences, and small unattractive blighted districts would be scattered throughout the residential sections.

Non-Conforming Uses

A study was made of the existing uses that do not conform to the regulations of the proposed ordinance. In general, only a small percentage of the present development is not in conformity with the proposed regulations. The largest number of non-conforming uses are commercial structures. Many of these are old structures that were scattered throughout the residential areas before the adoption of the present ordinance. Others have resulted from amendments to the ordinance. Practically all of the non-conforming commercial uses are individual stores rather than groups of stores. The residential areas would benefit if these were eliminated at an early date. A large number of the present apartment buildings are also non-conforming. These structures have been permitted to scatter too widely in the past.

The comparatively small number of non-conforming uses indicates that the ordinance has been closely adjusted to existing conditions and that it does not propose any radical changes in property uses.

CHAPTER FIVE

T r a n s i t

INTRODUCTION

A TRANSIT system (street cars and buses) provides an essential service in the larger urban areas. In Lansing, one person out of every three owns an automobile, yet the transit lines carry an average of more than 15,000 passengers during a typical day. There would be much more vehicular congestion and it would be difficult for many persons to move about the city if no transit facilities were available.

The transit facilities will become even more important as the city increases in population and in area. More people will live beyond reasonable walking distances and a larger proportion of the population will use the facilities. If the high schools are developed in the more outlying areas, a large number of pupils will use the buses during the school year. It is also generally found that, as the riding habit increases, the transit service is improved either by the establishment of new routes or by faster service on existing routes, all of which tends to encourage people to use the transit facilities.

The transit plan is primarily concerned with the location of the routes rather than with the details of their operation. It is essential that the routes serve both the existing and future population with a minimum amount of duplicated service. Furthermore, the routes should not be constantly shifted from one street to another. If the routes are properly located, the schedules can be adjusted by the operating company to provide the necessary service.

Principles of a Transit System

Experience has shown that there are certain definite standards that should be followed in developing and operating a transit system.

1. **Pattern of Routes.** In a city such as Lansing, where urban growth has occurred in all directions around the central business district, there should be radial routes leading directly from the business district to the outlying sections of the city. Instead, however, of the

routes terminating in the central business district, they should pass directly through this area to other outlying sections. This arrangement insures a minimum of turning movements in the congested area. Transit routes should also pass through or near the major industrial areas, since many industrial employees use the transit facilities.

2. **Areas of Service.** A desirable maximum walking distance to and from transit routes is considered to be a quarter of a mile. All sections of the city will thus be adequately served if the radial transit routes are no more than one-half mile apart. The routes will naturally converge and provide more convenient service within the heavily populated central section.

3. **Alignment of Routes.** Obviously, a direct alignment is necessary. No one desires to go in several different directions before reaching his destination. All routes should lead as directly as possible from the central business district to their termination. Many bus systems use circular routes in which a bus goes to its destination on one route and returns over another. While this seems to give a wider service with the same facilities, it actually only half serves a greater area.

4. **Streets.** Wherever possible, bus routes should follow major thoroughfares. These are the widest and most direct streets within the city and consequently afford the best opportunities for direct and rapid movement of the buses. Since the major streets are also about one-half mile apart, which is a desirable spacing for transit routes, they are well suited for accommodating the bus routes.

5. **Speed.** A fast schedule means time saved for the patrons and fewer buses for the company. Care should be exercised in establishing routings through congested districts so as to avoid transit delays as well as to avoid any increase in existing congestion.

6. **Headways.** Fifteen minute intervals between buses have been found to be the desirable

SUMMARY OF TRANSIT DATA - EXISTING LINES

LAN S I N G
CITY PLAN COMMISSION
JULY 1937

LAN S I N G
M I C H I G A N

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ST. LOUIS, MISSOURI

NO. OF LINE	NAME OF LINE	LENGTH IN MILES %		NO. OF BUSES %		ROUND TRIPS PER DAY %		PASSENGERS CARRIED PER DAY - %		TOTAL SEATS PROVIDED PER DAY - %		SCHEDULE TIME FOR TYPICAL TRIP						SCHEDULE SPEED M-P-H	HEADWAY IN MINUTES
												LEAVES	AT	ARRIVES	AT	ARRIVES	AT		
1	COLLEGE - FISHER	12	18%	11**	37%	113	26.8	5810	37.4	4446	37.0	VERLINDEN & OTTAWA	11:34	MICHIGAN & WASHINGTON	11:44	COLLEGE	12:04	12	8½ WEST 4 EAST
2	WASHINGTON AVE	10	15%	4	13%	88	20.8	3390	21.8	21,027	18.9	GREENLAWN & WASHINGTON	11:00	"	11:15	OTTO & GRAND RIVER	11:30	10	15
3	SHERIDAN - BEAL	16	25%	4	13%	52	12.3	1998	12.9	19,015	17.1	BEAL & MT. HOPE	12:35	"	12:50	CHARLES & NORTH	1:25	12	20
4	OLDS - SOUTH CEDAR	10	15%	4	13%	68	16.1	2044	13.1	13,629	12.2	BUFFALO & ST. JOSEPH	11:00	"	11:15	PACIFIC & CLIFTON	11:30	10	15
5	WILLOW - KALAMAZOO	9	13%	4	13%	63	14.9	1569	10.1	11,991	10.8	WILLOW & CLEO	11:40	"	11:50	KALAMAZOO & MIFFLIN	12:03	12	15
6	DAKIN - W. GRAND RIVER	9	13%	2	6.9	38	9.1	734	4.7	4,452	4.0	DAKEN & PERKIN	7:30	"	7:45	STATE GARAGE RD. & GRAND RIVER	8:00	9	15-30

TOTALS 66 100 29 100 422 100 15,545* 100 111,260 100

NOTE - ALL LINES RUN FROM BETWEEN 5 & 6 A.M. TO BETWEEN 11 & 12 P.M.
EXCEPT NO. 6 WHICH RUNS BETWEEN 5:45 A.M. & 7:05 P.M.

* 18 % OF POPULATION , 13 % OF TOTAL SEATS PROVIDED

** 4 "COLLEGE TRIPPERS" - RUN EAST HALF OF ROUTE ONLY

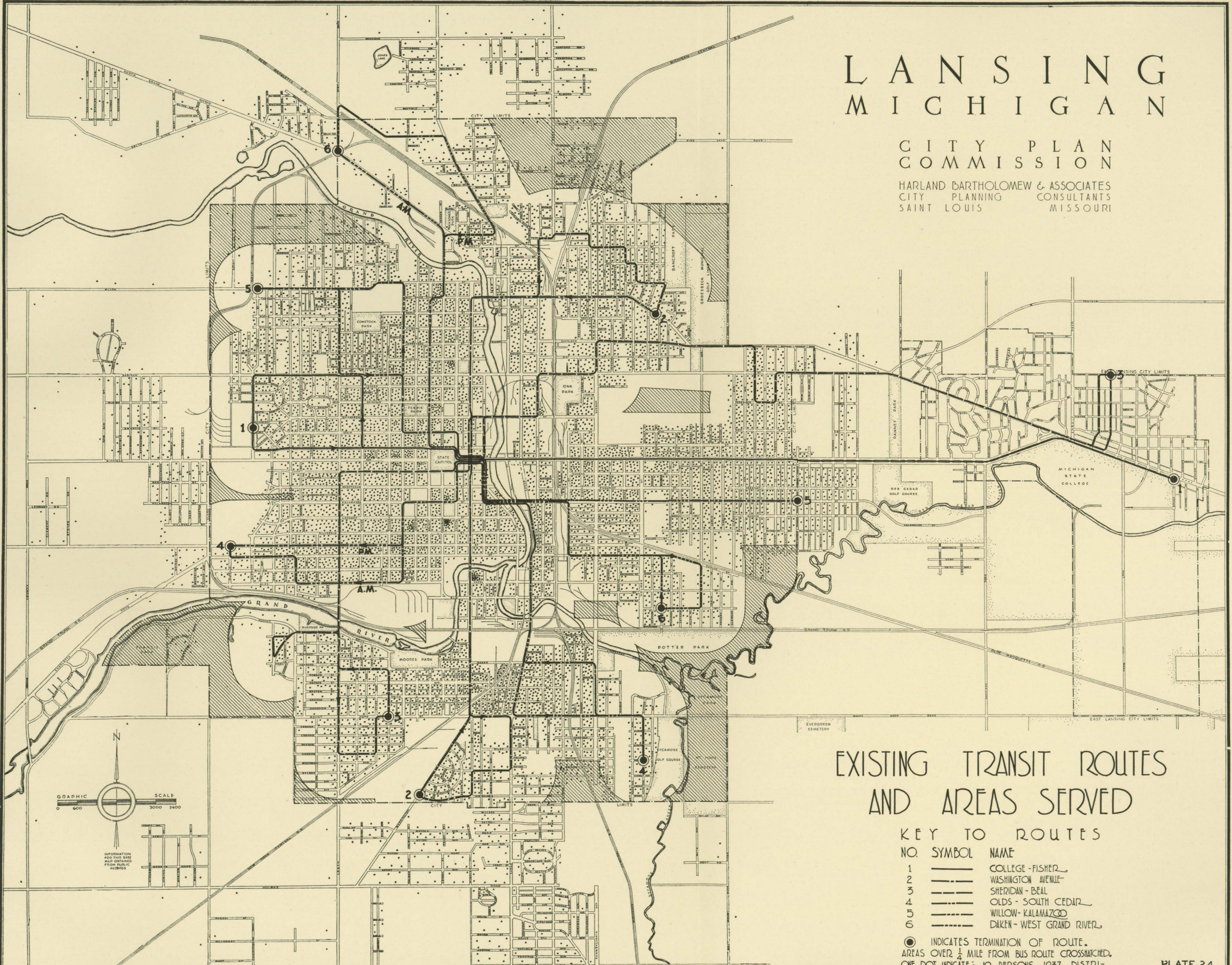
HEADWAYS DECREASED AT RUSH PERIODS AT LARGE
INDUSTRIES.

PLATE 25

LANSG MICHIGAN

CITY PLAN COMMISSION

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SAINT LOUIS MISSOURI



EXISTING TRANSIT ROUTES AND AREAS SERVED

KEY TO ROUTES

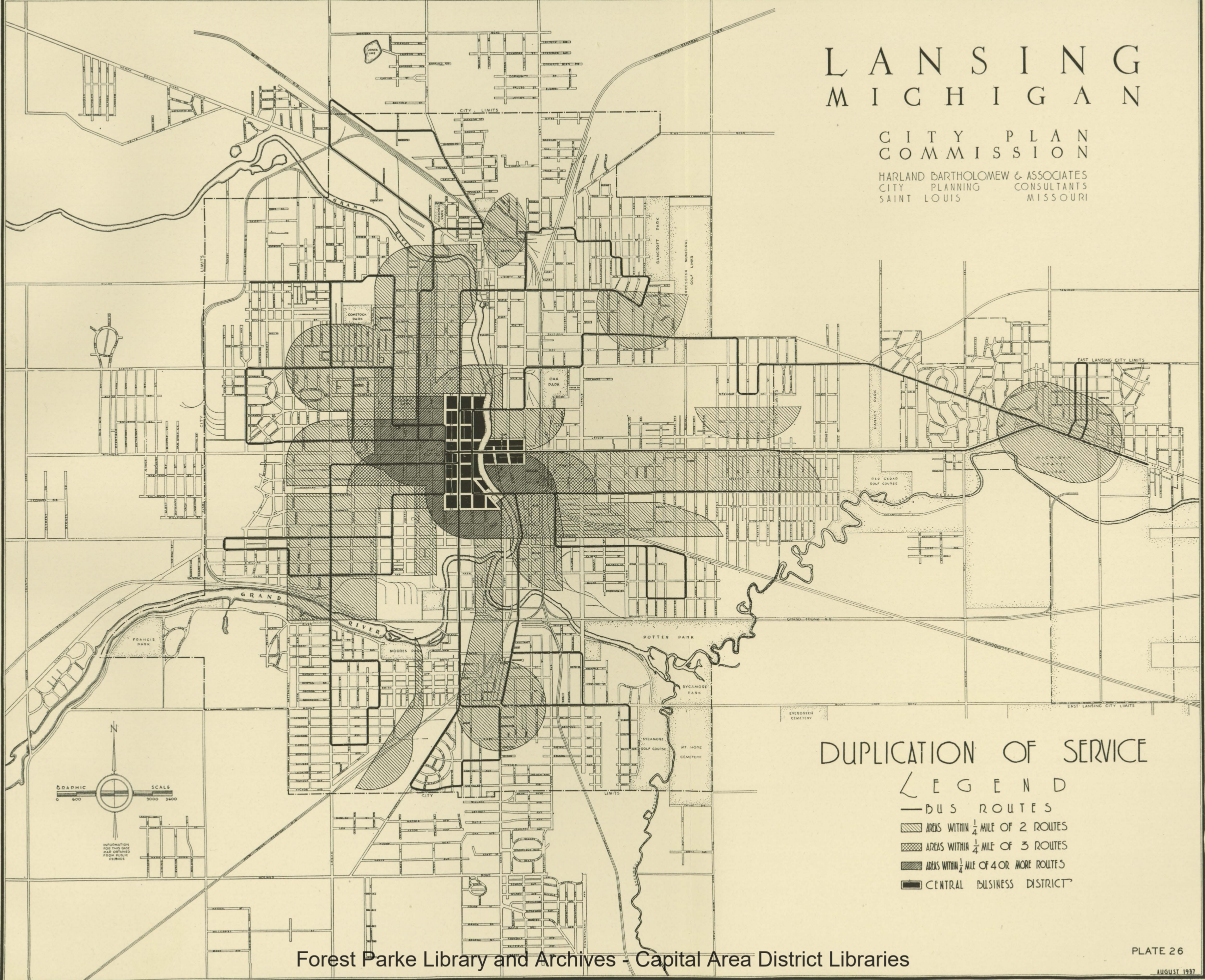
NO.	SYMBOL	NAME
1	—	COLLEGE - FISHER
2	—	WASHINGTON AVENUE
3	—	SHERIDAN - BEAL
4	—	OLDS - SOUTH CEDAR
5	—	WILLOW - KALAMAZOO
6	—	DAKEN - WEST GRAND RIVER

● INDICATES TERMINATION OF ROUTE.
AREAS OVER 1/2 MILE FROM BUS ROUTE CROSSHATCHED.
ONE DOT INDICATES 10 PERSONS 1937 DISTRI-
BUTION OF POPULATION.

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DUPLICATION OF SERVICE

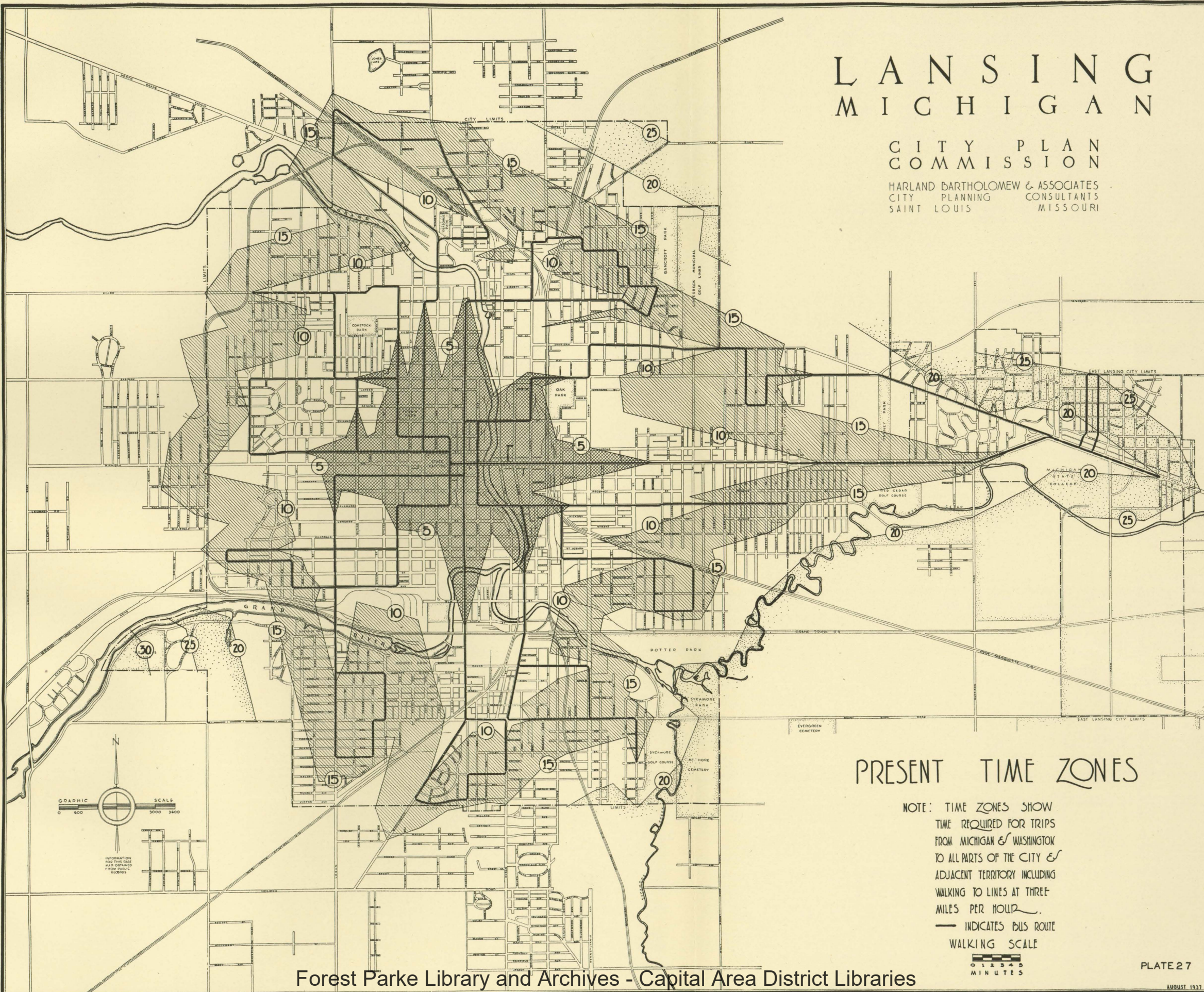
LEGEND

- BUS ROUTES
- ▨ AREAS WITHIN 1/4 MILE OF 2 ROUTES
- ▤ AREAS WITHIN 1/4 MILE OF 3 ROUTES
- ▥ AREAS WITHIN 1/4 MILE OF 4 OR MORE ROUTES
- CENTRAL BUSINESS DISTRICT

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PRESENT TIME ZONES

NOTE: TIME ZONES SHOW
TIME REQUIRED FOR TRIPS
FROM MICHIGAN & WASHINGTON
TO ALL PARTS OF THE CITY &
ADJACENT TERRITORY INCLUDING
WALKING TO LINES AT THREE
MILES PER HOUR.
— INDICATES BUS ROUTE
WALKING SCALE

0 1 2 3 4 5
MINUTES

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PROPOSED INTERMEDIATE TRANSIT PLAN

KEY TO ROUTES

- ① COLLEGE - FISHER
- ② EAST GRAND RIVER - ST. JOSEPH
- ③ WASHINGTON - MOUNT HOPE
- ④ OLDS - LARCH
- ⑤ KALAMAZOO - TURNER
- ⑥ MAIN - WEST GRAND RIVER
- ⑦ WILLOW - PENNSYLVANIA
- ⑧ SAGINAW - SOUTH CEDAR

maximum headway. Longer intervals necessitate a knowledge of schedule and are often but little better than no service at all. Much shorter intervals are possible on the more heavily travelled routes.

Existing Transit Routes and Areas Served

Plate Number 24 shows the existing transit routes within the city. It also shows the present distribution of population and the areas within the city limits that are more than one-quarter mile from any transit line.

The system is composed of six different bus lines, two of which extend to the city of East Lansing. The total length of all the routes is sixty-six miles. All routes run through rather than terminate in the business district.

The plan indicates that practically all of the existing population is within one-quarter mile of a bus line. Of 83,500 people living within the city, only 1,950, or 2 per cent, are more than one-quarter mile from a bus route. It will be noted, however, that several of the lines make a large loop near the end of the route, particularly in the outlying sections. While this enables fewer lines to be within reasonable distance of a large number of people, it does not provide adequate service in these outlying areas. The loops on the western portions of routes 1, 4 and 6 are examples of this type of routing. The practice of reversing the direction in which the buses move over these loops during different portions of the day would be very confusing to anyone not conversant with the schedules.

A few of the routes also have rather indirect alignment. For example, the Sheridan-Beal route in the east central portion of the city winds back and forth on several streets without heading directly for the central business district.

Data Regarding Existing Transit Lines

Plate Number 25 contains statistical data regarding each of the present transit routes. It will be noted that the College-Fisher line carries by far the largest number of passengers, there being nearly eight times as many as are carried on the Dakin-West Grand River route. This line also operates the largest number of buses and, consequently, provides the best service of any route.

An interesting comparison is afforded between the number of passengers carried during a typical day and the number of seats provided. Since only about fourteen per cent of the total number of seats are occupied during the day, it would appear that the transit company is, for the most part, providing adequate service.

The majority of the routes operate on a maximum headway (interval between buses) of fifteen minutes, which is, however, decreased during the rush-hour periods. The speed of the buses on each route also seems to be generally satisfactory. An average speed of about ten miles an hour throughout the entire route provides rather fast service when it is considered that this includes time for loading and discharging passengers and the time required to pass through the central business district.

Duplication of Service

Plate Number 26 shows graphically all areas within one-quarter mile of two or more transit lines. These are the areas in which there is more transit service than is absolutely necessary.

The majority of the duplicated service is found in the central portion of the city and, of course, much of it cannot be avoided in this area since the routes should converge near the business district. In some instances, however, it would be possible to locate the routes on one or two main streets rather than use several parallel streets. For example, Capitol and Washington Avenues could be used in the area north of the business district rather than the several streets that are now occupied by single routes.

The majority of the duplication in the more outlying sections of the city results from the loops near the ends of the routes. The duplication near Logan and Saginaw Streets is caused by the long loops near the west end of the Willow-Kalamazoo route and the College-Fisher route. Certain of these loops could be eliminated and the citizens would still be within reasonable distance of a transit line.

While there is not an excessive amount of duplication in the present transit system, the elimination of some of this duplicated service, particularly in the more outlying sections, should facilitate the establishment of additional transit routes and the providing of additional

buses on existing routes. These improvements will soon be necessary in order to serve the new population growth.

Time Zones

The adequacy of a transit system is judged partly by the combined walking and riding time required to go from the central business district to any portion of the city. Passengers are naturally anxious to reach their destination as quickly as possible.

The time required to go from the intersection of Michigan and Washington to any portion of Lansing is graphically shown on Plate Number 27. Walking time is computed at three miles per hour. This plate also shows a similar study that was made in 1921, and affords a comparison of the transit system of that date and the present facilities.

Practically all sections of the city can now be reached within fifteen minutes. This is a quite reasonable length of time and should tend to encourage considerable riding. It will be noted that the routes having the most direct alignment provide the fastest service. For example, the fifteen minute zone on the College-Fisher route is much farther from the central business district than it is on the Sheridan-Beal route where there is a considerable amount of indirect routing in the northeastern portion of the city.

A comparison of the two plans shows that a decided improvement in transit facilities has been made since 1921. At that time, a considerable portion of the city was not even included within the thirty minute zone. The development of the additional transit lines, new types of transit facilities and certain major street improvements have provided the city with faster and more convenient transit service.

Intermediate Routing Plan

Plate Number 28 indicates certain suggested changes in, and additions to, the present transit system. These routings are an intermediate step between the present transit facilities and the proposed ultimate system. The time within which the recommendations of the intermediate routing plan can be carried out will depend primarily upon the rate of population increase

within the city. Some of the changes could be made immediately, while others can be gradually made over a period of five or ten years, or even longer.

The plan shows two additional bus lines which will become necessary as the population increases and also as some of the loops, such as the one in the northwestern portion of the city on the present Dakin-West Grand River route, are abandoned. For the most part, the proposed transit routes are located on streets now carrying bus lines, but, in several instances, a part of one existing route has been connected with a part of another route. Small loops are proposed at the end of each route to eliminate dangerous turning movements.

A brief description of each of the proposed routes follows:

1. This route is practically the same as the existing College-Fisher route. West Michigan Avenue is used, however, instead of Ottawa Street, since it will eventually become an important major street. The extent of the loop routing in the western portion of the city has been greatly reduced, as much of the area can be better served by the proposed routing on Saginaw Street.

2. The eastern part of this route is similar to the eastern portion of the present Sheridan-Beal route, except that the eastern portion of the route has also been slightly changed to provide more direct and more extensive service, which undoubtedly will be necessary in the near future.

The western portion of the route is similar to the present Olds-South Cedar route, except that it uses only Washington and St. Joseph Streets rather than the present loop routing. The establishment of another route in the southwestern section of the city will eliminate the need of a loop.

3. The northeastern portion of this route is generally similar to the present Washington Avenue route, except that the length of the loop has been somewhat reduced. The route is the same through the central portion of the city but the southwestern part of the route is slightly changed, in that it is located west rather than east of the New York Central Railroad. The route in this section of the city will serve Moores Park and a large population immediately south thereof.

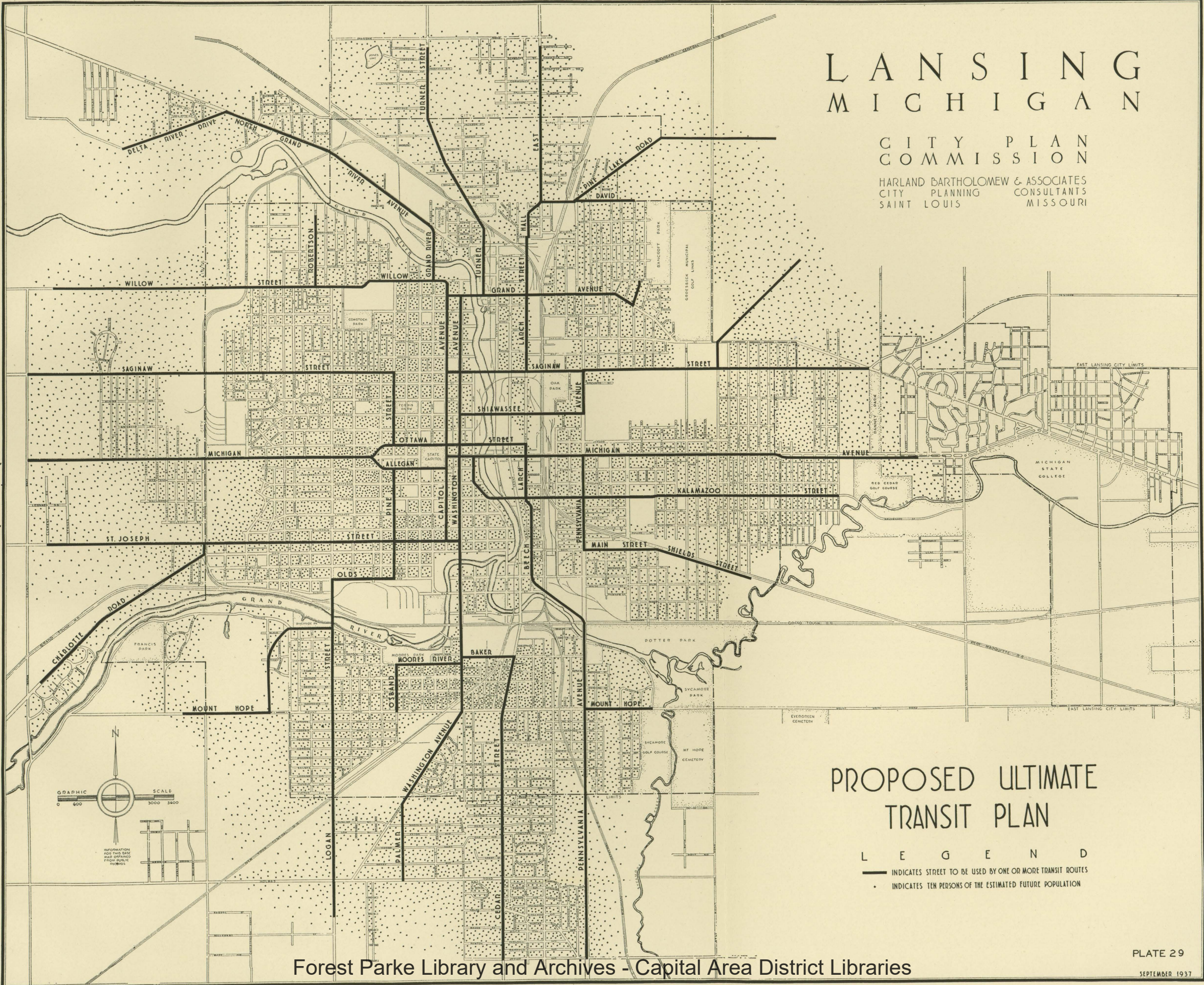
4. A new route is proposed in the northeastern portion of the city which will be necessary in the near future to serve this rapidly growing district. The proposed transit facilities should encourage urban growth in this general area. The route would serve the new Thomas Street School as well as the Motor Wheel plant. It will also serve the large industrial district lying northeast of the central business district. The southwestern portion of this route consists of portions of the present Olds-South Cedar route and of the Sheridan-Beal route.

The route traverses a rather heavily populated section of the city and serves two of the major industrial plants, namely, the Olds Motor plant and the Motor Wheel plant. It will probably require a large number of buses, particularly during the rush-hour periods.

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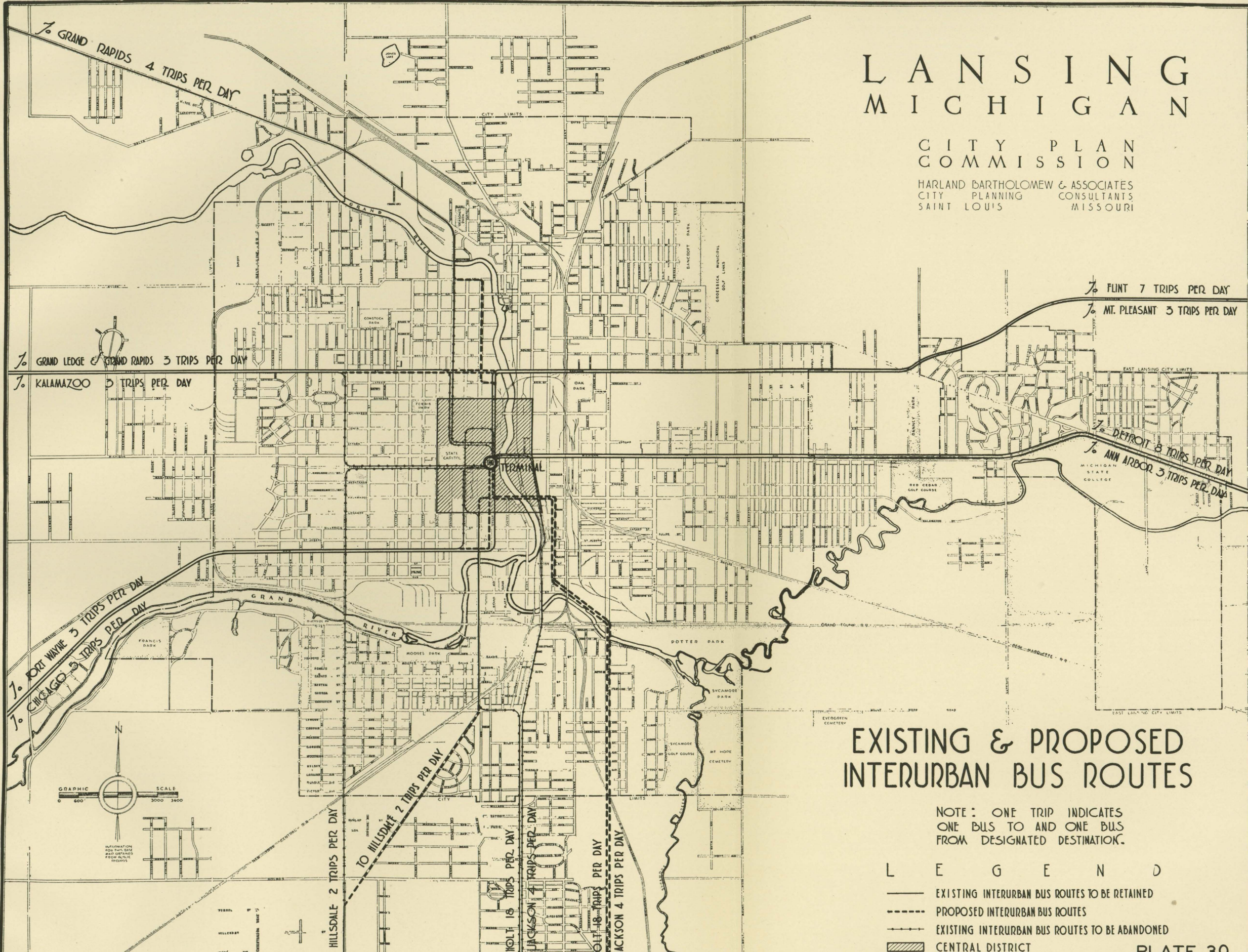
PROPOSED ULTIMATE TRANSIT PLAN

L E G E N D
— INDICATES STREET TO BE USED BY ONE OR MORE TRANSIT ROUTES
• INDICATES TEN PERSONS OF THE ESTIMATED FUTURE POPULATION

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5. The majority of the northern portion of the route is new, although some of it does correspond to the eastern loop found on the present Dakin-West Grand River route. More adequate transit facilities will soon be needed in this general section of the city to encourage urban growth and to insure a balanced development. The eastern portion of the route is located on Kalamazoo Street and is the same as the eastern portion of the present Willow-Kalamazoo route.

6. This route is approximately the same as the present Dakin-West Grand River route. The loop in the northwestern part of the city has been eliminated, and north of the business district the line should be located upon Capitol Avenue rather than upon Walnut Street. No changes are proposed in the extreme southeastern portion of the route.

7. The northwestern portion of this route uses the majority of the present Willow-Kalamazoo route, except that the loop has been eliminated. The southeastern portion of the route serves the area now traversed by the Olds-South Cedar route. It is proposed, however, to locate the route on Pennsylvania rather than on Cedar as at present. This route would serve two rapidly growing sections of the city and should carry a large number of passengers.

8. The western portion of this route replaces a part of the loop routings of the present College-Fisher and Willow-Kalamazoo routes. The improved service should encourage much additional riding in this section of the city. The southern part of the route uses Cedar Street and provides facilities in an area now served by both the Washington Avenue and Olds-South Cedar routes.

It is believed that the area south of the city will soon require transit facilities. This route could provide considerable service in this section by having one bus make the west loop and serve the area immediately east of Washington Avenue, while the following bus could travel over the portion of the route south of the present city limits.

It will be noted that the proposed intermediate routes are well distributed and serve all sections of the city. They are also direct and practically all of them are located upon major streets. The different portions of each route serve areas in which the riding habit will be generally similar so that the same frequency and type of service will be needed throughout the entire route.

Under the intermediate plan, all of the routes pass through the intersection of Washington and Capitol Avenues. This will greatly facilitate transfers between the several routes, and it is not believed that it will provide excessive congestion for many years. Eventually, however, it will be necessary to use additional streets within the central business district.

Ultimate Transit Plan

Recommendations regarding the ultimate transit system in Lansing are shown on Plate

Number 29. The plan also shows the probable future distribution of population. The proposed routes should be adequate to serve the ultimate growth, and can be developed gradually during the next thirty years.

This plan shows the streets that would be used for transit routes rather than the exact routings of each bus line. Consideration was given, however, to keeping approximately the same number of routes on each side of the business district so that through routings rather than loop routings could be obtained. The detailed routing of each line can best be developed over a long period, for conditions may arise which would necessitate many changes from a detailed routing plan proposed at this time. It is important, however, that the future routes be established on the streets shown on this plan.

All of the probable future population would be within reasonable walking distance of a proposed transit route and each line could extend directly from the outlying sections to the central business district. Several routes also pass through or near the existing and future industrial areas. Only a minimum amount of duplicated service would be provided under the proposed routing and the majority of such duplication would be near the central business district where the lines converge. Loop routings have been eliminated under the ultimate system, since the lines are seldom more than one-half mile apart. In a few locations, however, such as in the extreme southwestern part of the city, a loop may prove necessary near the end of the route. Practically all of the streets accommodating transit lines on the intermediate plan would continue to be used by transit routes in the ultimate system.

Interurban Bus Routes

Interurban buses provide little or no local transit service, but they add to the vehicular congestion and their routings through the city are usually controlled by the city officials. In general, interurban bus routes should be located on the radial major streets where they can lead directly from the outlying towns to the central business district. Within the central business area they should traverse as few streets as possible, which will reduce the number of turning movements and avoid excessive

vehicular congestion. All buses should use a central terminal which is equipped for off-street loading and unloading. It is very undesirable for buses to move all around the business district in order to stop at the various hotels and at other objectives.

Existing and Proposed Routings. Plate Number 30 shows that several of the interurban bus routes within the city now travel directly to the central business district on important radial thoroughfares. The routes on East Michigan and on East Saginaw are examples. Other lines, however, such as the line going to Fort Wayne and the line to Holt, use a somewhat circuitous route to reach the terminal. The following changes in the various routings will provide for the utilization of only the dominant major streets and will eliminate the heavier buses from the more restricted residential districts. Some of these proposed re-routings cannot be made, however, until certain major street improvements are carried out.

1. Route to Grand Rapids. The only change proposed on this route is its removal from Seymour Avenue and the use of Washington and Grand Avenues in place thereof. While a few turning movements are necessary in order to reach Grand Avenue, these are made beyond the confines of the congested area and should not interfere with local traffic.

2. Route to Grand Ledge and to Kalamazoo. Both of these routes should use Saginaw to Grand Avenue and then enter the central business district on this latter street. Neither Seymour nor Allegan Streets, which are now used

by a portion of these routes, are major thoroughfares.

3. Route to Fort Wayne. The only change proposed in this route is that it use Main Street to Grand and then enter the business district over this latter street.

4. Route to Chicago. No changes are proposed in this route.

5. Route to Hillsdale. As soon as Washington is extended between Holmes and Logan Streets, this bus route should enter the city over Washington Avenue. It can turn eastward on Kalamazoo and reach the terminal via Grand Avenue.

6. Routes to Holt and Jackson. The proposed development of Pennsylvania Avenue, which radial route will serve the southeastern section of the city, will provide a much more desirable entrance to the central business district for these two bus lines. Cedar Street is now quite congested and it is proposed that these routes be changed as soon as the necessary improvements and connections are made.

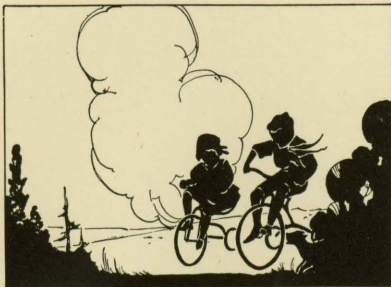
7. Routes to Detroit and Ann Arbor. No changes are proposed in these routes.

8. Routes to Flint and Mount Pleasant. No changes are proposed in these routes.

Routings Within the Central Business District. The location of the present bus terminal is generally satisfactory. It is readily accessible to all sections of the central shopping district, yet located on a street that is not unduly congested. Under the proposed re-routing plan, only Grand Avenue and Michigan Avenue will be used by interurban buses within the central area. This routing will reduce the number of turning movements and generally facilitate traffic movements within this heavily used district.

CLASSIFICATION of POPULATION

FACILITIES WHICH SHOULD BE AVAILABLE



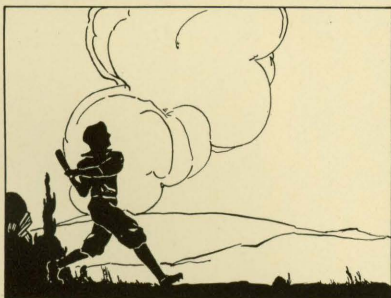
SMALL CHILDREN

HOME GROUNDS
INTERIOR BLOCK PLAYGROUNDS
NEARBY CHILDREN'S PLAYGROUNDS
& KINDERGARTENS
DRIVES } IN PARKS
PROMENADES }



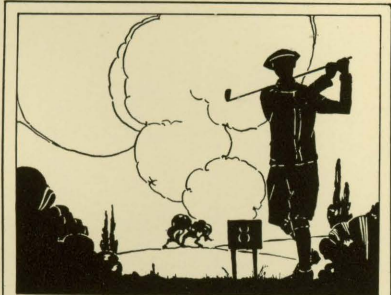
SCHOOL CHILDREN

HOME GROUNDS
INTERIOR BLOCK PLAYGROUNDS
PLAY AREAS IN PARKS
SWIMMING POOLS
SKATING PONDS
COASTING HILLS
BOY & GIRL SCOUT CAMPS
SCHOOL PLAYGROUNDS
PLAYFIELDS FOR ATHLETICS
COMMUNITY CENTERS
OUTLYING NATURALISTIC PARKS



YOUTH

PLAYFIELDS
SWIMMING POOLS
SKATING PONDS
COASTING HILLS
NEIGHBORHOOD PARKS
LARGE PARKS
COMMUNITY CENTERS
PLEASURE DRIVES



ADULTS

RELATIONSHIP OF POPULATION GROUPS TO A SYSTEM OF RECREATION FACILITIES

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PLATE 31

CHAPTER SIX

Recreation

INTRODUCTION

RECREATIONAL facilities provide for a proper utilization of the leisure time now possessed by the citizens. Juvenile delinquency is successfully combatted by play areas which are properly placed, developed, and supervised. Parks break up the monotony of cities and make the city more beautiful—a better place in which to live. They preserve natural features such as rivers, lakes, etc., for the enjoyment of future generations. Local parks and schools should be the focal point of a well organized and active community life. In brief, recreational areas improve the health and general welfare of the citizens and are an investment, not a luxury.

Lansing has long recognized the advantages of park facilities. Since 1910, the increase in the public park areas has kept pace with the growth of population. The city has also made excellent progress in developing and maintaining the parks. The majority of the areas contain extensive improvements and several are lighted for night use. Many facilities for games and sports are available.

Park development in Lansing has generally followed a preconceived plan. Many of the recommendations of the early city plan are now realities, and practically all of the existing park development can be included in the comprehensive recreational system. The recommendations of this chapter are coordinated with other portions of the city plan and the new areas can be developed where they will properly serve surrounding population, duplication of areas and facilities can be avoided and the park system can materially assist in securing a logical use of urban land.

Principles of a Comprehensive Recreational System

An adequate system of recreational facilities must be both extensive and diversified to serve the many requirements placed upon it. This section contains an analysis of the facilities that

should be provided to serve all persons, which agency should be responsible for the development of each facility so that duplication will be entirely avoided, and a discussion of modern standards regarding the location and area of the several units comprising the complete system.

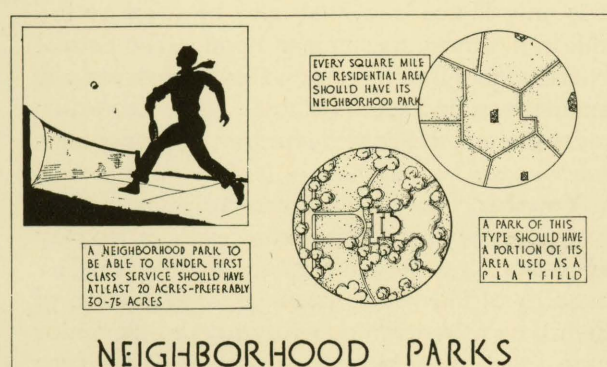
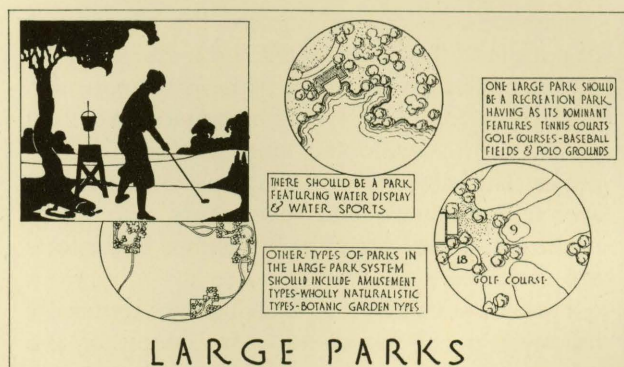
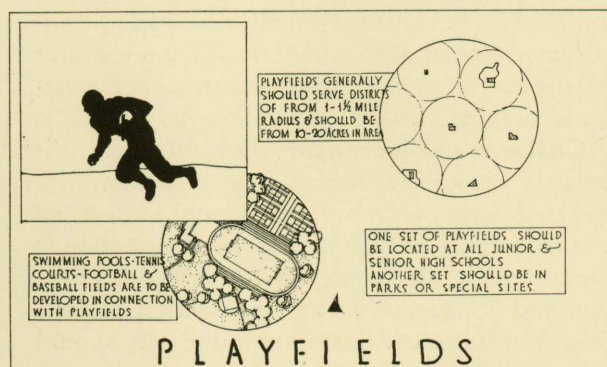
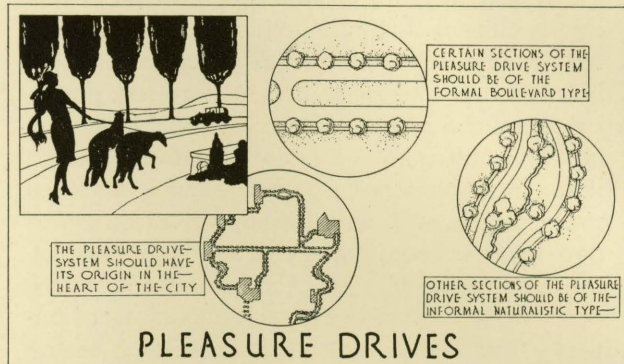
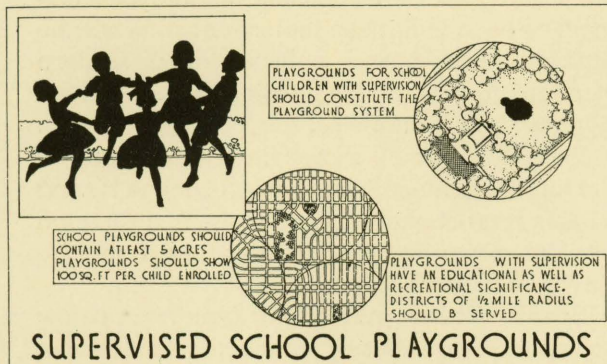
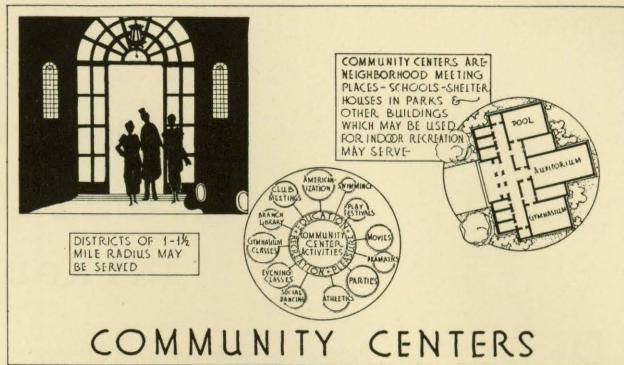
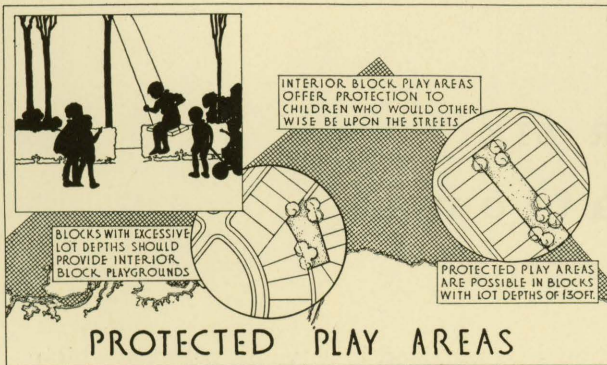
Plate Number 31 shows the classification of the total population into different groups having similar recreational requirements. A discussion of each group and the facilities that should be provided for them follows:

Small Children. Small children, below school age, are closely attached to the home. Adequate home grounds and small play lots in the interior of blocks are their most logical recreational areas. The provision of fresh air and free space for protected play is primarily a parental obligation.

Children of Elementary-School Age. Children of elementary-school age are under the guidance and control of educational authorities a considerable portion of the time. Recreation is becoming an integral part of the school curriculum and a large playground is needed at each elementary school. Since the entire city should be served by these facilities for the school year, it is only logical that they also be used by the children during the summer months. The School Board should thus be responsible for developing, maintaining and supervising all of the necessary recreational facilities for children of elementary-school age.

Youths. The youths are more interested in active games and sports and require larger play areas than the elementary school children. The majority of the youths spend a large portion of their time in school and every junior and senior high school should have an adequate field for play and sports. These fields should also be available during the summer, although a small portion of them, such as the football field, might be protected from intensive use.

There will also be many youths who are not in school and who will look more to the Park Board



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TYPES OF RECREATION FACILITIES

CITY PLAN COMMISSION
LANSING, MICHIGAN

than to school officials for their play areas, and playfield facilities must be provided in several of the public park areas. Thus, both the School Board and the Park Board are responsible for the development of recreational facilities for the youths.

Adults. Adults are generally more interested in quiet, passive recreation than in organized and competitive sports. For them, there should be neighborhood parks, large outlying parks, pleasure drives, small ornamental areas, and community centers. The adult population that does enjoy tennis, baseball and similar activities, can utilize the facilities of the playfields. The Park Board is primarily responsible for providing the recreational facilities for the adults.

There is, of course, certain intermingling of age uses in the different types of recreational areas. For example, all persons within the city will use the larger parks and some of the adults will use the playfields. The above mentioned facilities will, however, meet the dominant recreational requirements of all persons within the city with a minimum amount of duplication.

Plate Number 32 shows, in a general and diagrammatic way, the modern principles that should govern the location and development of the several units comprising a comprehensive recreational system.

Playgrounds. Playground location is amenable to the same formula recommended by educational authorities for the location of elementary schools. Each elementary school should serve a homogeneous residential neighborhood approximately a mile square and should be as near as possible to the center of this district. The school site should comprise at least five acres and should be so developed that not less than three acres will be available for unobstructed play space. Obviously, schools should not be located adjacent to railroads, in industrial and commercial districts, nor on major streets.

Playfields. A playfield should be found at every junior and senior high school. Junior high schools usually serve an area included within a mile radius of the school, while senior high pupils can travel a much longer distance. To provide for an adequate playfield, every senior high school site should comprise from twenty to twenty-five acres and every junior high school from ten to fifteen acres. Certain neighborhood parks and large parks should also contain play-

fields. The factors that seriously affect the usefulness of playgrounds, such as major thoroughfares, do not interfere so much with the use of playfields which attract older boys and girls who are able to travel farther and cross such routes in safety.

Community Centers. Every residential neighborhood should have a building for its indoor social and recreational activities. The school buildings are the logical neighborhood centers and should be designed and made available for such out-of-school uses. They need gymnasiums, auditoriums, libraries, and similar features. Such facilities can do much to stimulate interest and pride in the neighborhood.

Neighborhood Parks. Neighborhood parks are intimate community recreational areas whose value is chiefly dependent upon accessibility. Oak Park and Moores Park are examples of such areas. A neighborhood park should be within walking distance of every person in Lansing—one-half mile is generally considered a fair radius of service.

Parks of this type must fit into the thickly built up interior of the city and therefore are limited as to size. An area of at least twenty acres is desirable, however. They must be compact, thoroughly serviceable areas designed to offer the maximum recreational advantages to those who live around them. They should contain informal plantings and open spaces as well as facilities for active sports, such as tennis courts and baseball diamonds. The placement of such parks should be determined primarily by the boundaries of the district which it is to serve. Considerations of topography, wooded areas and the like should not be permitted to weigh too heavily against a central location.

Elementary schools can often be advantageously located in connection with neighborhood parks. This would provide an ideal neighborhood center that will do much toward unifying neighborhood life.

Large Parks. The modern city should be encircled by a series of large outlying parks. These areas, all connected by a system of pleasure drives, will offer a wholesome retreat from the noisy and monotonous man-made city. Topography should be a predominant factor in their location and their general treatment should be natural and informal. They should embrace and preserve for the city dweller, all types of native

landscape around the city. Woods and hills, lakes, streams and valleys naturally suggest themselves as public reservations. The parkways connecting these areas should be elongated parks, varying between 200 and 500 feet in width with a roadway near the center. Moores River Drive is an example of the modern parkway.

Small Ornamental Areas. Within the more intensively developed portions of the city, there should be several small ornamental parks and open spaces. These should be rather formally treated and well maintained. They will do much to beautify what otherwise might be the ugly and monotonous part of the city. They provide areas for rest and passive recreation.

Existing Recreational Facilities

The location and extent of the areas that now provide recreational facilities in Lansing are shown on Plate Number 33. The plan shows both public parks and school grounds, as well as certain state and semi-public areas which provide opportunities for play and passive recreation.

Seven per cent of the area within the city is now used for park and playground purposes. The areas are also reasonably well distributed throughout the city. The older central portion of the city contains a number of small areas but none that are large enough to provide adequate neighborhood facilities. This is the most heavily populated section of the city, but because of the intensive use and high value of land, it is most difficult to secure adequate park areas in this district.

The large number of neighborhood parks and playfields warrant special mention. The importance of the service rendered by such areas has been emphasized and the Park Board has greatly benefited the citizens in securing such a large number. They are generally well distributed in the outer residential districts where they are convenient to the persons that use them. It will be noted, however, that more of these facilities are needed in the west central portion of the city, as well as in the outlying sections which are now being developed.

The existing large parks are in desirable locations near the outskirts of the present urban development. They occupy sites containing in-

teresting topographical features, and it is extremely fortunate that they contain such a large amount of river frontage. Water areas are valuable features, and it is desirable that all, or at least the great majority, of the river banks in Lansing should be under public control. The large parks, especially those in the eastern portion of the city, form the nucleus of a framework of open areas encircling the urban areas. These encircling parks provide a green belt around the city which will assist in preventing an unbalanced population distribution and will also protect the residential areas.

Several of the semi-public areas, such as the Michigan State Campus, provide attractive open space, portions of which can be used by the general public for picknicking and other forms of passive recreation. The areas owned by the Board of Water and Light contain a large amount of river frontage and could eventually be developed so as to provide considerable recreational service.

Existing and Proposed Playgrounds

In accordance with modern standards, it is proposed that the recreation facilities for children of elementary-school age be provided on school grounds adjoining the elementary school buildings. These should be developed, maintained and supervised by the School Board. The recommendations of this section are concerned with the location and size of these playgrounds rather than with the type of school buildings erected thereon, or with the details of educational practices. The age and condition of some of the structures will, however, have a bearing upon the eventual abandonment of some school sites.

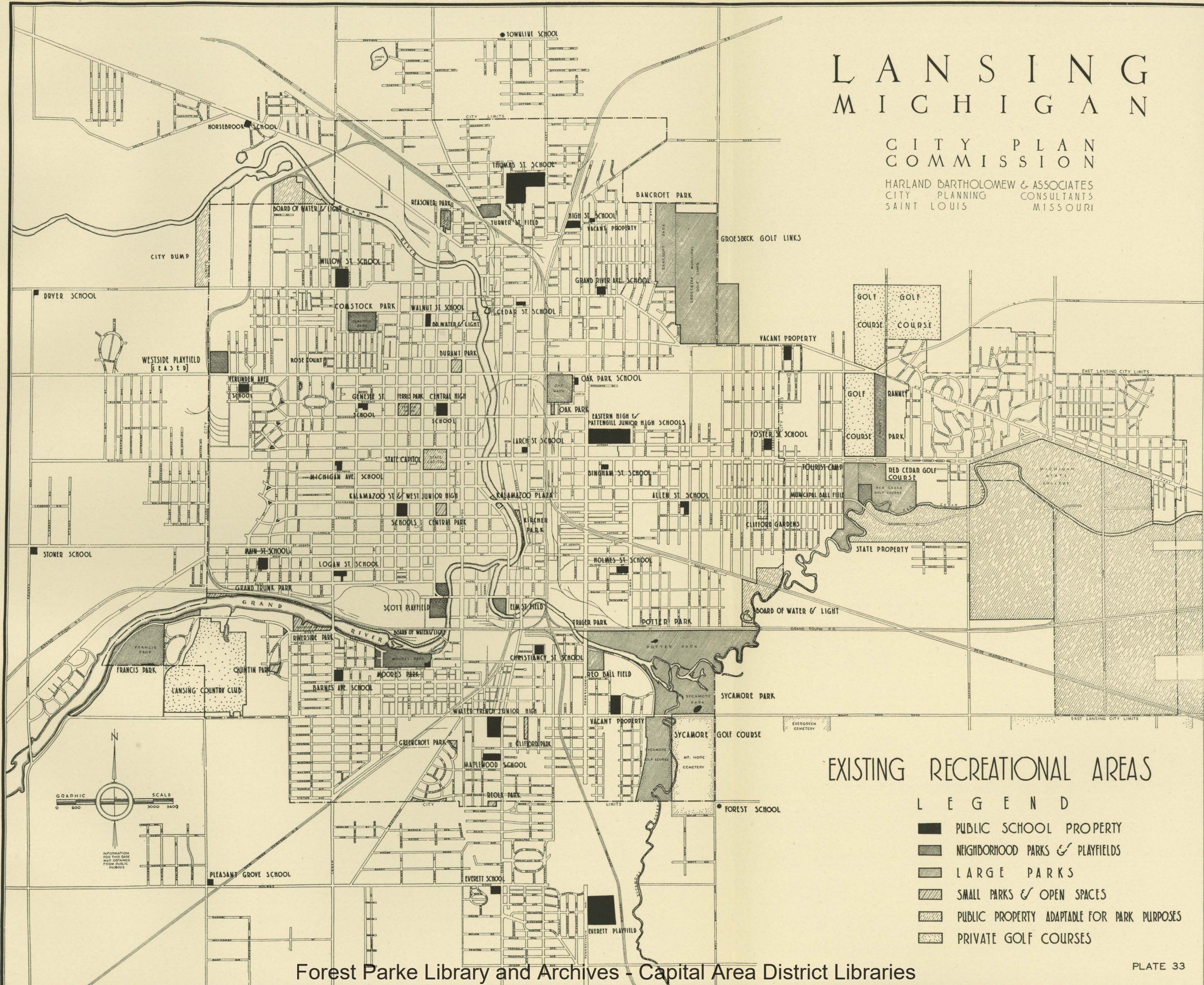
At present, the Recreation Department and the School Board cooperate in providing supervised play during the summer months and each employs one handicraft director, in addition to supervisors, for each playground which they maintain. Two swimming pools, one at Eastern High, and another at West Junior High are operated by the School Board, and one pool at Moores Park is operated by the Department of Recreation.

The present system of supervised play produces good results but there will eventually be great economy in having all of the children's

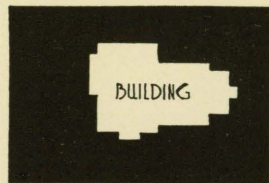
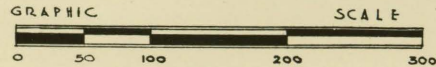
LANSING MICHIGAN

CITY PLAN COMMISSION

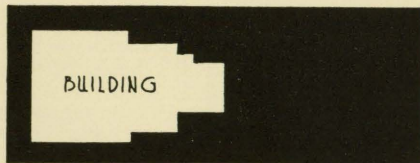
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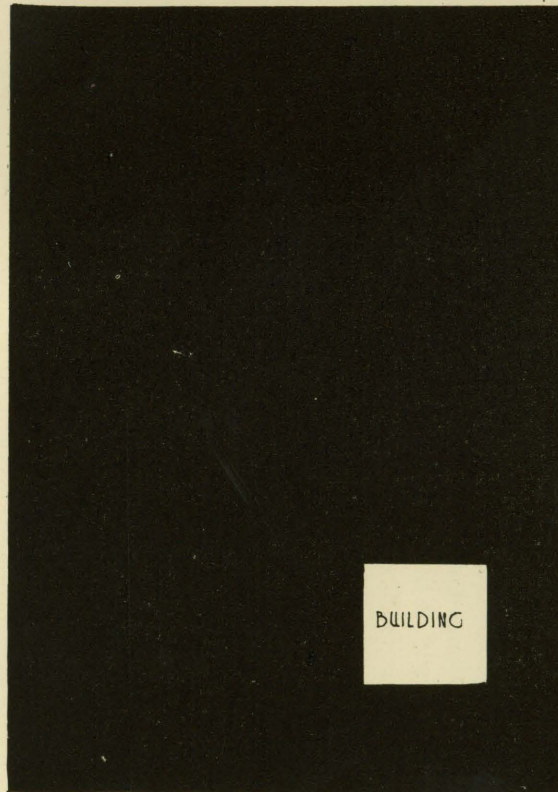
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BINGHAM STREET
SCHOOL
0.60 ACRES

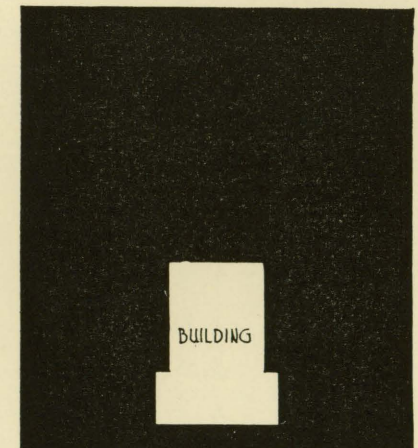


CEDAR STREET SCHOOL - 0.83 ACRES



WILLOW ST. SCHOOL - 6.52 ACRES

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BARNES AVENUE SCHOOL - 2.04 ACRES

COMPARISON OF EXISTING SCHOOL SITES
LANSING

MICHIGAN
PLATE 34

5-57

play activities centered in the public school system and administered by school officials, rather than for a portion of them to be administered by the Park Board. Supervised play, as it is now developed, is, to a considerable degree, educational in character. The School Board is in a logical position to organize and administer a playground staff and the future physical plant of the school system should be well adapted to organized play activities.

Existing Elementary School Grounds.

Details of the existing elementary school sites are contained in Table Number 10. While several of the existing sites provide a play space of more than 100 square feet per child, much of this area is of such size and shape that a well organized play area cannot be obtained. Furthermore, the enrollment will increase at many of these schools and the existing play area will soon become congested. Only two of the twenty-two elementary schools within the city now have a site of the standard size (5 acres). Many of the existing sites must be enlarged and larger sites must be acquired in the future, if the playgrounds are to provide adequate service.

Plate Number 34 shows a comparison of some of the older schools with sites that have been more recently acquired. It is evident that there is little or no opportunity for play at the Bingham and Cedar Street School since the sites are almost completely occupied by the buildings. Different

conditions are found at the Willow Street School where a much larger area is available and there is ample opportunity for landscape treatment and for screen planting. The School Board is to be commended for its more recent acquisitions in conformity with modern standards.

Many of the older school sites are improperly located. Some of them are in areas that are now being absorbed for commerce and industry while others are too close together. It is unfortunate that so many schools have been developed on major streets. Such locations involve many hazards for the smaller children which could otherwise be avoided.

Proposed Playground Facilities. The present enrollment at the elementary public schools represents about 11 per cent of the total population. If this ratio continues in the future, there would eventually be about 16,000 children using the public play areas. The improvements proposed to serve this population with the necessary playground facilities are shown on Plate Number 35.

The plan also shows the estimated distribution of the total future population. Half-mile circles around the future sites indicate that practically all children would be within reasonable distance of a playground. It will be noted that considerable future population will be beyond the present city limits, and that several new sites are

Table Number 10.
DATA REGARDING EXISTING ELEMENTARY SCHOOLS

SCHOOL	Year Building Erected	Enrollment (1936)	Area of Site	Available Play Space	Play Area Per Child
Allen Street	1926	734	1.78	52,258	71.6
Barnes Avenue	1920	435	2.04	86,600	199.0
Bingham Street	1909	246	.60	18,506	75.2
Cedar Street	1918	373	.83	18,700	50.0
Christianity	1914	429	1.77	64,002	149.2
Foster Avenue	1918	690	1.24	35,650	51.7
Genesee Street	1912	348	1.18	39,280	122.9
Grand River Avenue	1912	336	1.30	17,361	141.2
High Street	1924	529	2.01	77,032	147.3
Holmes Street	1923	530	1.65	53,580	101.1
Kalamazoo Street	1923	704	3.03	30,000	42.6
Larch Street	1888	247	.75	22,092	91.5
Logan Street	1937	280	.75	17,360	62.0
Main Street	1929	331	2.38	97,420	294.2
Maplewood	1918	425	2.50	99,697	211.1
Michigan Avenue	1915	321	.93	28,640	89.2
Moores Park	1906	318	1.14	44,082	138.8
Oak Park	1916	432	.73	5,050	11.0
Verlinden Avenue	1930	339	1.66	65,909	194.4
Walnut Street	1937	416	1.50	46,690	112.2
Willow Street	1937	465	6.52	254,191	546.6

proposed to serve this future growth. In the few locations where a walk of more than one-half mile would be necessary, the unserved area is so small that it would be uneconomical to provide an additional playground. Existing sites were used wherever possible, which partly accounts for the slightly uneven distribution of sites in certain sections. A discussion of the several recommendations follows.

Existing Sites of Adequate Size

Thomas Street School. This school has an excellent site of ample size and is well located to serve the northern portion of the city. Area is also available for the development of a new Junior High on this site and a fine educational center should result.

Willow Street School. This school has an excellently located site of ample size.

Existing Site on Mount Hope. This is another new site containing an area of desirable size. It will serve a large population in the southeastern portion of the city and will accommodate many of the children which now use the Christianity School.

Sites to be Enlarged

Allen Street School. The enlarged site includes the remainder of the block on which the present building is located and the two blocks immediately to the west. The small portions of Allen Street and Lathrop Street which are included within the site could be vacated without inconveniencing local traffic movement. These two blocks would connect the school with the neighborhood park that is to be developed at the southwest corner of Clifford and Kalamazoo. Until such time as the park is acquired and developed, the school ground could provide some service as a neighborhood park for the surrounding territory. Because of this service the Park Board might give assistance in acquiring the enlarged school site.

Barnes Avenue School. This school ground should be enlarged from 2.04 acres to 3.8 acres, by acquiring the remainder of the block. While the proposed enlargement is now occupied by several residences, the additional area is essential to provide play facilities for the surrounding residential development. This site will serve a large area within the southwestern portion of the city between the New York Central Railroad and the Grand River.

Foster Avenue School. This site is well located to serve a large residential development in the eastern portion of the city. It now contains only 1.24 acres and should be enlarged to 4.9 acres by acquiring the remainder of the block to the north, vacating one block of Vine Street, and acquiring the southern portion of the block between Vine and Fernwood. A new building could eventually be built on the northern part of the site which would place it at a reasonable distance from the heavily travelled Michigan Avenue.

Grand River Avenue School. A large residential district in the northeastern portion of the city can be served by this playground. The present site is too small and the remainder of the block could be acquired, making a total area of 6.3 acres. Eventually, a new school should be built at the north end of the site to remove the children from immediate contact with traffic on Grand River Avenue.

Holmes Street School. This site is well located to serve the residential area between the Grand Trunk Railroad and the Pere Marquette Railroad. The present site is too small and should be expanded by acquiring the remainder of the block as well as the block to the north, and vacating Mechanic Street. The acquisition of only the southern half of the block to the north would probably prove adequate for some time. A well equipped playground in this district will eliminate much of the hazard of the children crossing the railroads to reach other play areas.

Kalamazoo Street School. One of the most heavily populated sections of the city is served by this playground. The district will always have a large population because of the apartment zoning and since it contains no neighborhood parks, a large playground is most essential. The West Junior High School should eventually be removed and the entire block to the east acquired. Chestnut Street could then be vacated between Kalamazoo and Lenawee and a site of 6.8 acres would be available for school and playground purposes.

Abraham Lincoln School. The recent extensions of this site will insure a fairly adequate playground for several years. The site should, however, be enlarged so as to include all of the block except for the lots in the southwest corner. The enlarged area will provide playgrounds and a community center for the foreign and Negro population in this section of the city. Ultimately, this playground service might be provided at the Kalamazoo and the Main Street Schools.

Main Street School. This school is reasonably well located to serve the southwest portion of the city. Its site should, however, be eventually enlarged from 2.38 acres to 4.72 acres by the acquisition of the block to the west and the vacating of one block of Nipp Avenue. This acquisition should be made in the near future as the majority of the land is now vacant.

Maplewood School. This location will serve a large residential area in the south central portion of the city. The site should be enlarged to four acres by the acquisition of the remainder of the block to the north. This additional area will also connect this playground with a proposed enlargement of the Walter French Junior High School and permit the development of a fine educational and play center in this section of the city.

Oak Park School. At the present time, this site serves only a small area which is, however, intensively developed. It will never have a much larger enrollment unless the site of the Industrial School is sold and subdivided. While it might eventually be abandoned, it will be needed for a long time and the site should be enlarged by acquiring three lots to the north on Saginaw Street and the two lots to the south. This will give a site of \$.29 acres and a small portion in the northeast corner of Oak Park could continue to be used for playground purposes.

Verlinden Avenue School. About one-third of the area

served will be used for industrial purposes so that a large playground will never be necessary. The vacant block to the south should be acquired and one block of Drexel Road could be vacated. This enlargement would give a total area of 3.82 acres.

Walnut Street School. This site in the north central portion of the city will also serve a large population. More playground space is needed and the remainder of the block should be acquired, which would give a total area of three acres. This area is inadequate, but no additional ground is available and some of the children will probably have to use a portion of Comstock Park during out-of-school hours.

Schools to be Abandoned

Bingham Street School. A large portion of the area served by this school will eventually be absorbed by industry and the remaining portions can be served by the Allen Street School, Holmes Street School, and the Oak Park School. The site is very small and the building is twenty-eight years old.

Cedar Street School. This school should be abandoned in the near future since the area it serves is entirely duplicated by four other sites. The site contains only 0.43 acres and any extensions would be both difficult and expensive. The newest portion of the building is twenty years old.

Christianity School. The location of this school is very unsatisfactory because of the surrounding industries and railroads. All of the area now served by this site could readily be served at the Maplewood School and at the site on Mount Hope. The building is twenty-three years old, and the site is totally inadequate.

Genesee Street School. A large proportion of the service area of this school is now served by the five surrounding schools. The present site is inadequate and would be expensive to enlarge. Since the building is twenty-five years old, it is recommended that this school be abandoned eventually. It can, however, be retained until the surrounding sites are enlarged.

High Street School. This school should be abandoned because its area of service is taken care of by the Grand River Avenue and the Thomas Street Schools. It is also located in close proximity to the Michigan Central Railroad and eventually will be surrounded by industry.

Larch Street School. This school should be abandoned because the site is inadequate, the building fifty years old, and the area served is duplicated by the Oak Park School. Also, a large portion of the area surrounding this site is used by industry and commerce.

Michigan Avenue School. The service area of this school is duplicated by the Verlinden Avenue School, the Main Street School and the Kalamazoo Street School. The site is small and poorly located, adjoining the intersection of two important thoroughfares.

Moores Park School. The radius of service of this school is mostly duplicated by the Barnes Avenue and the Maplewood Schools. The building is thirty years old and the site is very small. It should be abandoned in the near future.

New Sites Beyond the City Limits

West of the city limits and north of Saginaw. This site will eventually serve a large residential district lying

between Michigan Avenue and the Grand River. A site of about three or more acres adjoining a proposed neighborhood park should be acquired.

It should be noted that a playground site containing less than five acres is often recommended when developed in connection with a neighborhood park. If, however, the park development should be abandoned or delayed, the School Board should acquire not less than five acres.

West of the city limits and south of St. Joseph Street. This site will serve a similar residential district lying south of Michigan Avenue. It should also adjoin proposed neighborhood park and an area of not less than three acres should be acquired.

West of Kelsey and Pattengill. This district will ultimately require playground facilities, although the residential area should never be intensively developed. The site should contain not less than three acres since it will adjoin a proposed neighborhood park.

Logan Street and Loa Street. This site will serve the fast growing section south of the present city limits. At least three acres should be acquired adjoining the proposed neighborhood park.

Site Near Jones' Lake. A playground of about three acres adjoining a proposed neighborhood park will be necessary to serve the northwestern portion of the city.

Pine Lake Road east of the City Limits. This proposed site will also adjoin a park area.

East of Groesbeck Golf Course. A considerable population will eventually be found in this area and an excellent site can be developed in the proposed location.

Enlarged Sites Beyond the City Limits

Everett School. This site is well located to serve the extreme southern portion of the future city and should eventually be enlarged to about five acres.

Horsebrook School. It is unfortunate that this school adjoins a main highway, for it is otherwise well located. The site should be enlarged before the surrounding vacant area is absorbed.

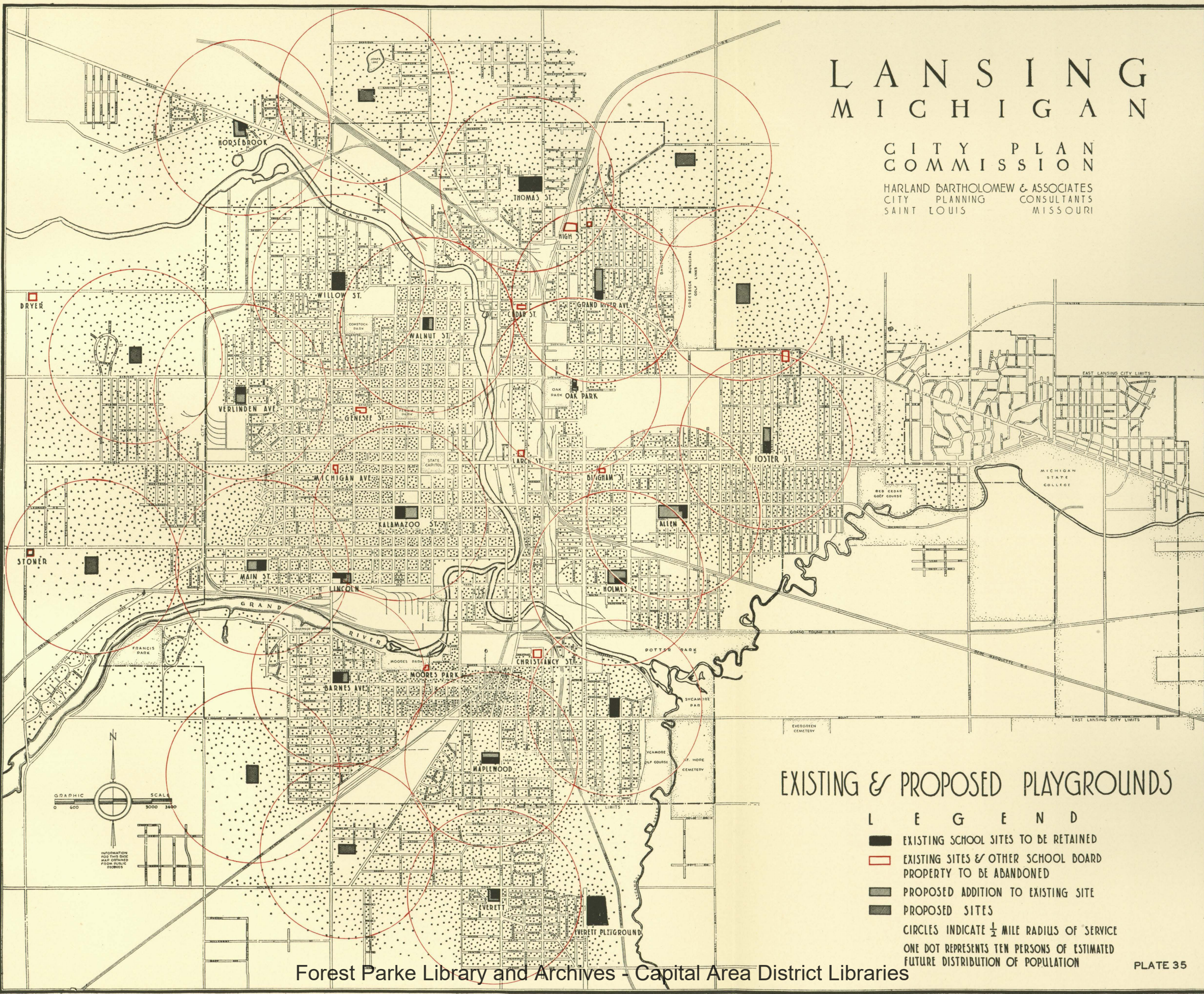
The above proposals are in scale with future needs and can be developed gradually over a period of twenty-five years or more. Twenty-five years ago, Lansing had only five of the present twenty-two schools. The proposed future development is less extensive than the development which occurred during the past twenty-five years. Also, since the population will increase slowly, if at all, after 1960, practically no further capital investments will be necessary.

The importance of enlarging many of the existing small sites cannot be over-emphasized. If vacant lots are acquired as quickly as possible and if other properties are secured whenever the buildings become obsolete, no excessive expenditure will be necessary. Sale of sites recommended to be abandoned will provide funds for acquisitions.

LANSING MICHIGAN

CITY PLAN COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS MISSOURI



EXISTING & PROPOSED PLAYGROUNDS

L E G E N D

- EXISTING SCHOOL SITES TO BE RETAINED
- EXISTING SITES & OTHER SCHOOL BOARD PROPERTY TO BE ABANDONED
- ▒ PROPOSED ADDITION TO EXISTING SITE
- PROPOSED SITES

CIRCLES INDICATE $\frac{1}{2}$ MILE RADIUS OF SERVICE
ONE DOT REPRESENTS TEN PERSONS OF ESTIMATED
FUTURE DISTRIBUTION OF POPULATION

Existing and Proposed Playfields

The youth of the city require playfields and athletic grounds for their recreational activities. The majority of these areas should adjoin high schools. Junior high schools should contain about fifteen acres and senior high school sites should contain from twenty to twenty-five acres.

Existing Playfields at Schools. The majority of the existing school playfields in Lansing are inadequate. This is particularly true of the areas surrounding the senior high schools. Central High School contains an area of only three acres. This area is almost completely covered with buildings and its students are forced to seek recreation in Ferris Park, an area of only six acres, and to play football games at the Eastern High School stadium. The Eastern High School site, only large enough for one school, is shared by the Pattengill Junior High.

A somewhat similar situation is found at the junior high schools. The Walter French School is an excellent new building but the area of the site is slightly below the desirable standard. The new Thomas Street site is an excellent area and an adequate playfield can be developed to serve the northern portion of the city.

West Junior High School is located on a site of only three acres. The Kalamazoo Elementary School is also on the same site. The block is practically covered with buildings and more than 2,200 pupils have no place to play. It is evident that during the next twenty-five years, much additional area will have to be acquired for the school playfields in order to serve the needs of the future city.

Proposed System of Playfields. It is estimated that there will be about 5,400 senior high school pupils and about 6,500 junior high school pupils in Lansing, eventually. Two schools should be adequate to accommodate the senior high students since youths of this age can travel a considerable distance and can use the transit facilities to reach the schools. At least five junior high schools will be needed to accommodate the future population. Practically all of the youths within the city would be within one mile of the proposed sites. The proposed location of the playfields at both the senior and junior highs are shown on Plate Number 36. A brief discussion of the proposed improvements follows.

Playfields at Senior High Schools

New Western High School. It is recommended that Central High School be eventually abandoned because of the impracticability of obtaining an adequate site. A new senior high school would be developed at St. Joseph Street and the western city limits. A large tract of vacant land is now available in this vicinity and a site of approximately 20 acres should be acquired. The school site is proposed on St. Joseph Street since the northern portion of the vacant tract is well wooded and should be used for a neighborhood park development. A high school in this location could conveniently serve all of the future urban population in the western half of the city, particularly after certain of the proposed major street improvements are carried out.

New Eastern High School. It is proposed that the Eastern High School be eventually abandoned and that a new school be developed to the east of the proposed neighborhood park at Wood Street and North Grand River Avenue. The proposed site shown on the accompanying plan has a frontage of about 1,200 feet on North Grand River Avenue. This location would conveniently serve all of the future population in the northern and eastern portions of the city.

It is recognized that the present Eastern High is a new building and cannot be abandoned for a long time. However, the present site is now congested and should be entirely used for junior high school purposes. The proposed site should be acquired before it is absorbed by private development.

Junior High Schools

Pattengill Junior High School. With the eventual elimination of the present Eastern High, this school will have an adequate playfield. It is well located to serve the large population in the east central portion of the city.

Thomas Street School. The new Junior High School that the School Board proposes to build on the Thomas Street site will be well located to serve the northern portion of the city. The site is adequate for playfield facilities.

New West Junior High. It is proposed that the West Junior High be eventually abandoned and replaced with a new school on the site of the existing West Side Playfield. The old site should be used for elementary school and playground purposes. The new site contains about twelve acres and is strategically located to serve the entire western portion of the city. This district will experience a large population growth in the future and adequate playfield facilities will be needed.

Walter French School. It is proposed that the Walter French School site be extended to the south to include an additional area of about three acres. The present playfield is somewhat cramped and the enlarged area will be necessary to serve the future increase in population in the southern portion of the city.

New Site in Southwestern Portion of the City. A new junior high school is proposed in conjunction with a proposed neighborhood park at Mount Hope Street and Pattengill Avenue. The site should contain about twelve acres. This school and the Walter French School will serve the entire southern portion of the city.

In addition to the above, another school may eventually be necessary in the extreme eastern portion of the future city. Otherwise, the pupils in this area would have to travel a long distance to reach the Pattengill Junior High School site. This school could also serve a number of pupils in East Lansing.

Playfields at Parks. In addition to the above playfields adjoining the future junior and senior high schools, several of the existing and proposed parks will also contain playfield facilities. The approximate location of some of these are shown on Plate Number 36. It is evident that all youths could eventually be within reasonable access of playfield facilities.

Existing and Proposed Neighborhood Parks

Neighborhood parks should afford recreational opportunities to all persons within the surrounding neighborhoods. Such areas should provide facilities for both passive and active recreation rather than be a barren sports field. They should contain landscaped lawns, wooded areas, walks and shelters, as well as space for the play of small children and areas for games and sports. The area of the parks should not be less than fifteen acres and preferably should be more than twenty acres.

Existing Neighborhood Parks. Lansing is unusually fortunate in possessing six neighborhood parks, at least three of which are well located and developed and afford excellent service. All of the existing areas can eventually be improved so as to provide the necessary facilities and can become an integral part of a future system of neighborhood parks. The extensive use made of the present neighborhood parks indicates the necessity of providing more of these areas throughout the city. As the proposed playgrounds and playfields adjoining the schools are gradually developed, a larger portion of the existing parks can be devoted to lawns, planting and similar treatment.

Following is a brief discussion of the existing parks.

Oak Park. This area is a good example of a neighborhood park. While it contains numerous playareas, a large space is devoted to trees and lawns. Due to the absence of other similar areas in the eastern portion of the city, this park is unduly congested. Additional neighborhood parks are needed to relieve the overcrowding.

Moore's Park. The useful functions performed by neighborhood parks are emphasized by the popularity of Moore's Park. It is estimated that at least 40,000 persons use this area annually. The park contains a swimming pool, picnic area, playground, two tennis courts, lawns and planting. It is also a good example of the manner in which a neighborhood park should be developed and maintained.

Comstock Park. This park has just been acquired and is now being developed. It will contain two softball fields, a shelter, and a skating rink in addition to other features. It is in an ideal location to serve the north central portion of the city.

Scott Field. This area, while termed a playfield, in reality fulfills many of the functions of a neighborhood park. It is fully developed with tennis courts, softball fields and a playground. It is primarily used for sports and occasionally part of it has been used as an outdoor theater.

Ranney Park. This park now performs more of the functions of a playfield than a neighborhood park, attracting people from all over the city. However, when a complete system of neighborhood parks has been developed, this area should not be so congested and can serve the surrounding neighborhood. It contains nine tennis courts and one softball field, and only one-half of the area is developed.

Reasoner Park. Though small, this site should also be considered as a neighborhood park. Its area of three and one-half acres should be increased so as to afford more service. It now contains two tennis courts, a playground, softball field, and a small picnic area.

Proposed Neighborhood Parks. Many of the present developed sections of Lansing need neighborhood parks and new sites should be acquired in the outlying areas that will eventually be urbanized.

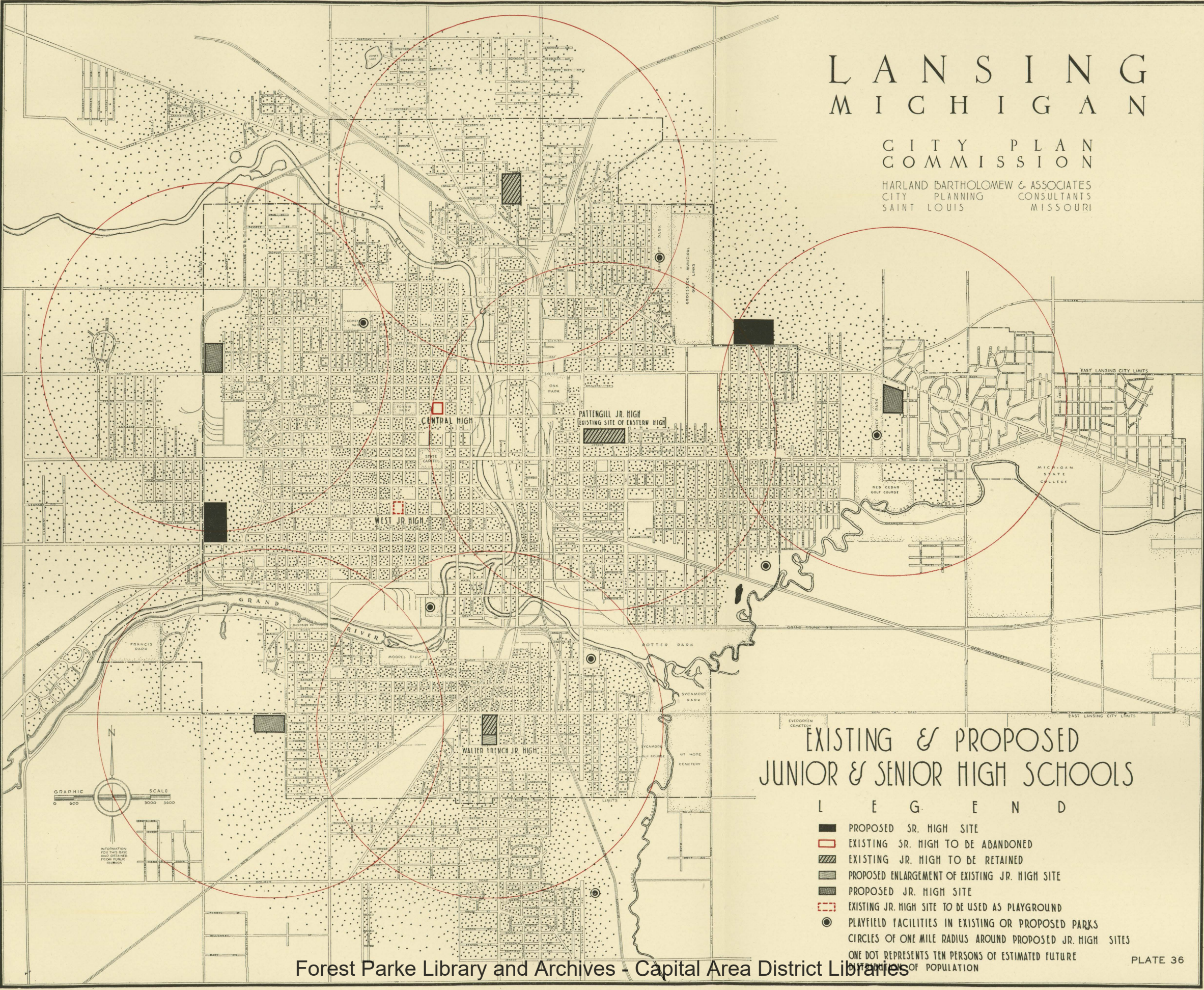
Plate Number 37 shows the proposed system of neighborhood parks and the probable distribution of the future population. Most of the future city eventually will be within one-half mile of a neighborhood park. The only sections not included within this radius are a small area near the central business district and an area west of Bancroft Park. This latter park can, however, contain many of the facilities necessary to serve the surrounding neighborhood. The impracticability of now securing park areas in the older and intensively developed areas emphasizes the importance of acquiring park sites in advance of high land values. A discussion of the recommendations for future development follows.

Site North of Thomas Street School. Immediately north of the Thomas Street School, it is proposed that a tract of about ten acres be acquired to serve the northern portion of the city. The proposed site contains an attractive wooded area and should be developed in an informal, natural manner. This park area together with the playfield

LANSING MICHIGAN

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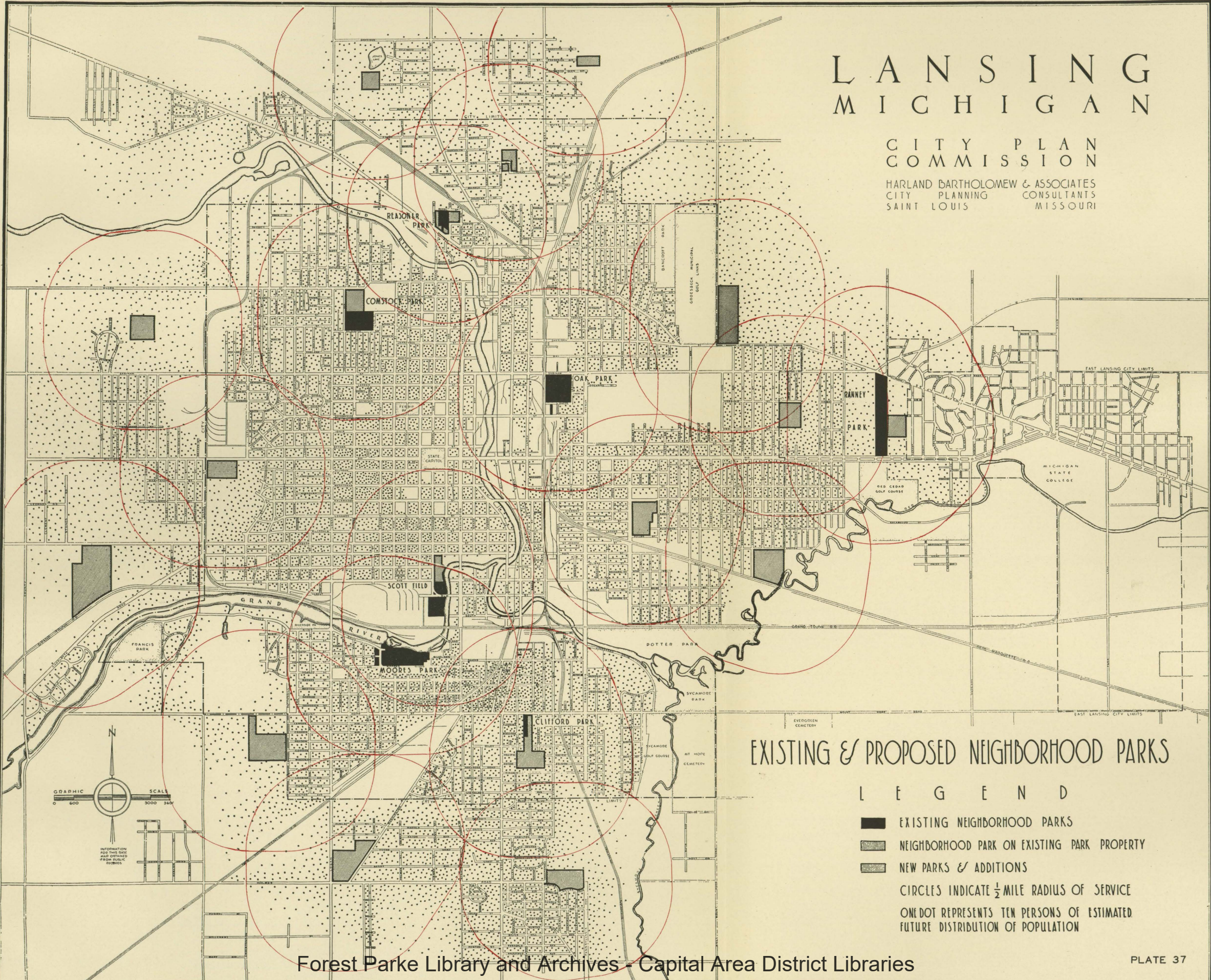
HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS MISSOURI



LANSING MICHIGAN

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and playground that should be developed on the school site will give an ideal community center.

Additions to Reasoner Park. An additional area of about four acres should be acquired around this park. The block east of the park between Russell and Howard Street should be acquired and one block of Capitol Avenue should be vacated. Small strips west and south of the park should also be acquired. With the proposed enlargements, the new boundaries of the park would be Seager Street on the west and North Street on the south.

Additions to Cornstock Park. This site should be enlarged by acquiring nine acres to the north of the present boundary. The proposed extension is now part of the School for the Blind. This additional land would provide a total park area of twenty-one acres and would connect the neighborhood park with the Willow Street School. The land to be acquired is now used only for garden purposes and contains no buildings.

Site at Michigan Avenue and City Limits. To serve the extreme west central portion of the city, a neighborhood park of at least eleven acres should be acquired at Michigan Avenue and the western city limits. This area now contains some very beautiful woodlands and has sufficient open area for lawn and play purposes. The proposed senior high school to the south eliminates the necessity of acquiring a large park since the school grounds could provide the necessary playfield facilities.

Additions to Scott Field. It is proposed that several acres be added along the northern boundary of Scott Field. These enlargements are necessary to serve the congested neighborhood south of the central business district and to provide public control over the river banks.

Additions to Clifford Park. This section of the city seriously needs neighborhood park facilities. The present park is undeveloped and contains only 2.75 acres. It is proposed that the park be enlarged to seventeen acres as shown on the plan. The proposed additions are well suited for park purposes.

Site at Kalamazoo and Holmes Streets. A neighborhood park should eventually be developed on the site of the existing gravel pit to the southeast of Kalamazoo and Holmes Streets. The land should be acquired as soon as possible and used as a dump until filled in. The area shown on the plan contains fifteen acres and would adjoin the proposed extension of the Allen Street School. These two areas would provide an ideal community center.

Site at Southeast Corner of Harton and Hayford. A park of twenty-six acres is proposed south of Harton Street and east of Hayford Street, to serve the population in the southeastern part of the city. Over one-half of this land is now owned by the Board of Water and Electric Light Commission.

To serve the ultimate future growth of Lansing, eight new neighborhood parks, an addition to Ranney Park and a Park development in an existing large park are proposed outside the city limits.

Site North of Michigan Avenue. A neighborhood park of about twenty acres is proposed near the Dryer Farm Road, to serve the population north of Michigan Avenue, south of

the Grand River and between the western city limits and County Line Road. This site is to be developed in conjunction with an elementary school ground and would provide an ideal neighborhood park.

Site Near Mount Hope and Pattengill. A combined neighborhood park, playfield and playground are proposed to the southwest of the intersection of these streets. Population is now beginning to move into this district and eventually the surrounding area will be entirely developed with residences.

Site at Holmes and Logan. North of Holmes Street and between Logan and Washington, a neighborhood park is proposed in conjunction with a suggested playground. About five acres of the proposed site is now well wooded and the remainder could easily be developed for lawn and play purposes.

Site at Holmes and Cedarbrook. At the east end of Holmes Road there is now an unusually attractive wooded ravine comprising about fifteen acres that has been recently deeded to the county. This should be developed with recreational facilities and will serve a rapidly growing section of the city.

Additions to Ranney Park. An additional area of about nine acres will eventually be needed in connection with the present park.

Site Near Foster School. To serve the population in the extreme eastern portion of the city north of Michigan Avenue, an eleven acre park is proposed as indicated on the plan. This area would only be a short distance from the Foster School and could be used in conjunction with the playground.

Site Near North Grand River and Wood Street. It is proposed that a neighborhood park be developed on the existing twenty-six acres of park property which lies northeast of North Grand River Avenue and Wood Street. This site would be developed in conjunction with the proposed high school and proposed playground.

Site East of Frederick Avenue. In conjunction with a proposed park site along the by-pass route, an additional area of about five acres is proposed at the end of Frederick Avenue to provide neighborhood park facilities in the extreme northeastern portion of the future urban area.

Site Near Jones Lake. In conjunction with a proposed park around Jones Lake and an elementary playground, a six acre neighborhood park should be eventually developed at the end of Carter Street to serve the extreme northwestern portion of the future urban area.

Existing and Proposed Large Parks

The preceding recommendations are concerned with recreational areas within all of the developed portions of the future city. These areas are primarily local units which would be used by the surrounding residents rather than by citizens from all sections of the city.

An additional type of park area is necessary to provide a comprehensive and balanced system of recreational facilities. This is the large park, containing an area of 100 acres or more.

These are usually located on the outskirts of the city, include the more outstanding scenic areas, and should be developed so as to preserve the natural beauty of the site. They usually contain picnicking and camping facilities, golf courses, bathing beaches, and other similar development.

There should be a large number of these areas distributed around the city and the several units should be connected by parkways. These pleasure drives should have a wide and properly landscaped right-of-way which should be 300 or more feet in width. Wherever possible, connecting parkways should be extended within the developed portion of the city, especially along the river banks.

Existing Large Parks. Lansing now has many attractive and well developed large parks. The large attendance at many of these areas, such as Potter Park, is indicative of their value and popularity. The areas that are developed with golf courses are extremely well used as evidenced by the 71,980 persons who used the three golf courses in 1936. The popularity of this game will undoubtedly continue and, as the population increases, additional courses will have to be provided. A brief description of the existing parks and the facilities which they provide follows.

Bancroft Park. This park contains forty-two acres of attractive woodlands and rugged areas. It also has one baseball field, a softball field, playground, skating rink and numerous picnicking facilities. This area and the Groesbeck Golf Course really form one unit and provide facilities that are of interest to all persons.

Francis Park. This is a very attractive area comprising sixty acres in the southwest portion of the city. It is undeveloped, but the wooded sections, the undulating topography, and its proximity to the Grand River afford possibilities for an outstanding development.

Groesbeck Golf Course. This area is one of the outstanding municipal golf courses of the Middle West. In 1936, it had an attendance of 15,000 persons. An improved approach to, and a better parking space within this area would be desirable. The present unused section lying immediately north of Green Street might be developed as an informal garden.

Potter Park. This is one of the most attractive and intensively used parks in Lansing. In 1936, it had an estimated attendance of more than 67,000 persons. It comprises 101 acres and many diversified improvements including a zoo, playfield, large playground, tennis courts, extensive picnicking facilities, and attractively landscaped areas.

Sycamore Park and Golf Course. This area lies immediately south of Potter Park. The park area comprises fifty-nine acres and the golf course an additional thirty-nine

acres. The park area is undeveloped except for a large playfield, while the smaller tract comprises a nine hole golf course. In 1936, the golf course had an attendance of 24,592 persons.

Tourist Camp and Red Cedar Golf Course. This site is located on East Michigan and comprises seventy-five acres. The area is intensively developed, containing a municipal baseball field, a well equipped tourist camp and a golf course. This latter development had an attendance of 22,500 persons in 1936.

Proposed Large Parks. The proposed large park system that should eventually be developed is shown on Plate Number 38. It will be noted that practically all of the sites are in the outlying areas and use rugged and wooded property that is not well adapted for residential purposes. The plate also shows the existing and proposed neighborhood parks and indicates all of the major areas which should eventually be under the control of the Park Board. The proposed system comprises approximately 1,700 acres and the sites are well distributed in and around the future urban development. It is evident that all citizens would be well served by this comprehensive system. It would not be unreasonable for the County to provide some assistance in the acquisition and development of these areas since many people from all sections of the County will use them.

A brief discussion of the detailed recommendations for new sites follows.

Area South of Sycamore Golf Course. Immediately south of the present Sycamore Golf Course there is a beautifully wooded tract lying along both sides of Sycamore Creek. The southern portion of this area is comparatively rugged and the entire site abounds in scenic beauty. This entire site should be reserved for public use. The only development necessary would be foot trails, a minimum amount of roads and parking areas, and picnicking facilities. This site would assist in guiding population growth into proper locations and prevent scattering of new growth in the southeastern part of the city.

Area Between Potter Park and Red Cedar Golf Course. It is recommended that considerable land be acquired along Red Cedar River between these two existing parks. The majority of the land is quite low and subject to over-flowing. It is entirely unsuitable for residential development and should be placed under public control. Flood hazards can eventually be controlled either by straightening the channel and constructing dikes or by some other method. The area is well wooded and would make an excellent naturalistic park even though flooded at certain periods. A portion of this proposed tract is now owned by the Board of Water and Light Commissioners, and the County and Township might assist in the acquisition and improvement of this area because of the flood problems which extend beyond the confines of the city.

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





ACQUISITION ALONG RIVER TO
CONTINUE WEST TO EXISTING
40 ACRE TRACT OF CITY
PROPERTY - THAT PROPERTY TO
BE DEVELOPED AS A PARK

GRAPHIC SCALE
0 600 1200 3600

INFORMATION
FOR THIS BASE
MAP OBTAINED
FROM PUBLIC
RECORDS

EXISTING & PROPOSED LARGE PARKS & PARKWAYS

LEGEND

-  EXISTING LARGE PARKS
-  PROPOSED LARGE PARKS
-  STATE PROPERTY ADAPTABLE FOR PARK PURPOSES
-  EXISTING & PROPOSED NEIGHBORHOOD PARKS
-  RIVERFRONT PROPERTY TO BE ACQUIRED
-  RIVERFRONT PROPERTY TO BE IMPROVED
-  BY-PASS PARKWAY

Enlargement of Red Cedar Golf Course. It is proposed that the golf course be extended eastward to the western end of Prospect Avenue and that beyond this addition, a strip of about 400 feet on the north side of the Red Cedar River be extended eastward to Harrison Road. This would provide public control over both banks of the Red Cedar River from the eastern edge of the Michigan State College to the western boundary of Potter Park.

Additions to Bancroft Park. Considerable property lying between Bancroft and the Pine Lake Road should be acquired. Much of this land is low and marshy and unsuited for residential purposes. A small but attractive lake could be developed in the low lying portions of this property. This lake together with an informal treatment of the surrounding area, including paths and picnicking facilities, should provide an attractive and useful development.

Sites Along Northern Portion of By-Pass. Two comparatively small areas should be acquired and developed by the state whenever the by-pass is constructed. These areas would be primarily useful as areas where tourists could enjoy brief rests amid pleasant surroundings. The area around Jones Lake is an especially attractive site while the area east of East Street contains some beautiful woodlands.

Development Along Grand River in North Part of City. A large park area is proposed along the Grand River in this general location. The area would have a rather irregular boundary which could be adjusted to wooded sections and to areas containing other interesting topographical features. The value of this proposed development cannot be over-emphasized. It would give public control over a large section of both banks of the river and would provide for the development of a water front somewhat similar to the park development along the Red Cedar in the southeastern part of the city.

River Front Area West of County Line Road. The city now owns 40 acres south of the Grand River a short distance west of the County Line Road. The area contains beautiful woodlands which afford excellent opportunities for picnicking and organized camping. It also contains attractive meadows that could be readily used for playfield facilities and a hillside that could be used for winter sports. Eventually, the river frontage north of the park should be acquired, or at least controlled by easements, and certain additional area might be acquired immediately to the east of the site. This park and the preceding one can be connected by a drive along the river which could be one of the most attractive and outstanding developments of the entire park system.

Site Adjoining County Line Road. An area of at least eighty acres should be acquired immediately east of the County Line Road between Saginaw Street and West Michigan Avenue. This area contains some attractive undulating topography and some scattered woodlands. It should eventually be developed with a golf course since the three existing courses are all in the eastern portion of the city.

River Frontage Opposite Francis Park. A large portion of the river frontage opposite Francis Park should be acquired and developed for park purposes. This area should extend from the present western city limits at least as far as County Line Road. The area contains some interesting topography and could be attractively developed in an

informal manner. Foot paths and picnicking facilities should comprise the major improvements.

Parkways. Three major parkways are proposed within and surrounding the city of Lansing. One will be the existing Moores River Drive which should eventually be extended further to the southwest along the river.

The second major parkway development would be along the Grand River in the northwestern section of the city. Detailed studies of topographical conditions would be necessary to determine just where this route should be located. It should, however, connect with one of the major streets, possibly beginning at the proposed extension of Logan across Grand River and continuing west along the river to the proposed park development west of the County Line Road. This could be an outstanding improvement and would be similar to the existing Moores River Drive in the southwestern portion of the city.

A most important parkway improvement would be the outer belt route which would completely encircle the city and connect practically all of the existing and proposed large parks. While this route was proposed as one of the major portions of the future major street system, and as such would carry large volumes of both pleasure and commercial vehicles, it should eventually be developed to have park-like characteristics. The route should have a right-of-way of not less than 200 feet in width and should preferably be 300 feet wide. This wide right-of-way should be attractively landscaped and the development adjoining the route should be properly controlled. The abutting property should have no access to the drive except at a few intersections.

The route is located at the edge of the future urban development and, if properly developed, would assist in preventing an unnecessary scattering of future urban growth. A few small areas along this route are recommended to be acquired for park purposes as indicated on the plan. These sites contain attractive wooded areas which should be preserved for future use and enjoyment. They would greatly enhance the park-like treatment of the route.

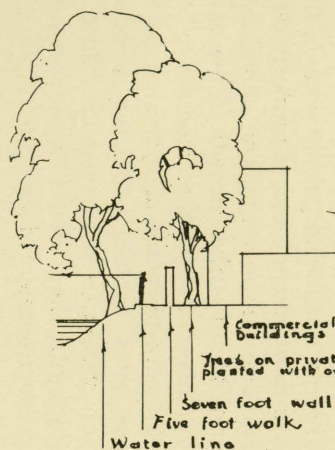
River Front Development and Small Parks

River Front Development. The city now owns a large amount of the property along the

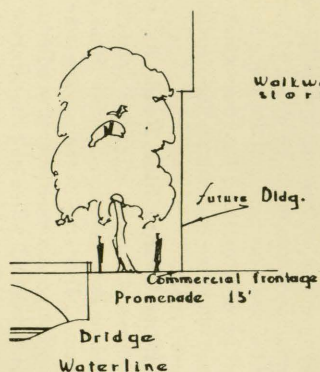
A SUGGESTED DEVELOPMENT OF The CENTRAL RIVER FRONT LANSING MICHIGAN

CITY PLAN
COMMISSION

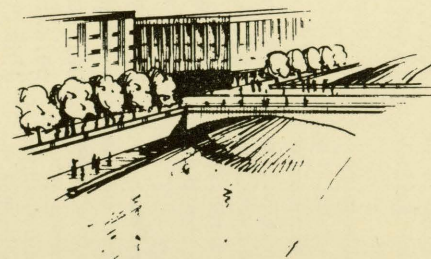
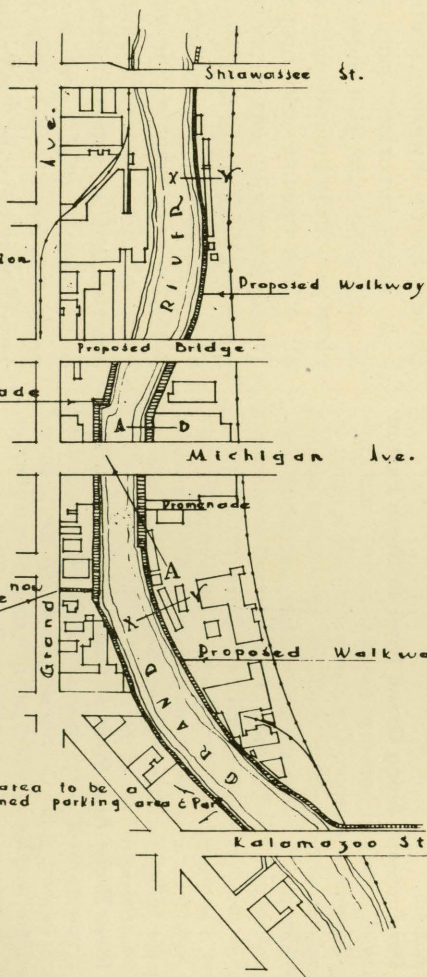
Harland Bartholomew & Associates
City Planning Consultants
St. Louis - Missouri



SECTION X-Y
being a typical section of the Promenade proposed WALKWAY to be developed on 10'-15' easement.



SECTION A-D
Showing development of a promenade along future commercial buildings



View from 'A'
showing
POSSIBLE ULTIMATE DEVELOPMENT

SKETCH PLAN OF
PROPOSED DEVELOPMENT

PLATE 39

river banks. The value of public ownership is evident from the existing development, and should be extended in the future so that all of the river front area within the city will either be publicly owned or under some form of public control. The proposed large park and parkway development outlined in the preceding section will insure much of this future ownership. Certain additional acquisitions, especially in the central portion of the city, will have to be made.

The proposed development along the Grand River might be placed in three major classifications, briefly described as follows:

(1) In the northern portion of the city a strip of land on the north side of the river between Turner and the Belt Line Railroad, should be acquired by the Park Board. Much of this area contains steep bluffs and has little value for residential or industrial development. The area on the west side of the Grand River extending north from Madison Avenue should also be publicly acquired and developed. On the south side of the Grand River, in this general section of the city, the banks might be controlled by easements which would permit the development of a walk and appropriate planting.

(2) In the central portion of the city, roughly between Madison on the north and Lenawee on the south, the river bank should be protected by easements. Plate Number 39 shows the suggested treatment in these areas. The foot paths, wall and planting would insure a very desirable treatment of the river frontage and would provide for public access even in the industrial areas. Many beautiful views of the river and bridges could be obtained by the pedestrians along these walks.

The development within the commercial district offers possibilities of securing an unusual treatment of shopping facilities that will attract many persons. Owners of private property adjoining the river should cooperate with the city in order to construct a promenade along the river.

The value of their property could be materially increased by this development. It might also be possible to provide considerable planting along the promenade even in the most congested portion of the city. An outstanding development would result from such improvements.

(3) The proposed river front development in the southern portion of the city is generally similar to the proposed development in the northern portion. Both acquisition and control by easements would be necessary. So much of the property is already owned that it should not be difficult to acquire the remaining frontage between Moores Park and Potter Park. It is especially necessary that considerable land be acquired at the junction of the Grand and the Red Cedar rivers. Practically all of this area is well adapted for park purposes and would provide a useful and attractive development.

Small Parks. The city now owns several small parks and open spaces such as Central and Durant Parks, as well as small triangular areas at street intersections. A number of these areas are attractively developed and afford useful services. This is especially true of the areas in the central portion of the city where it is practically impossible to acquire any additional park sites. They should always be preserved as ornamental and well landscaped open spaces rather than be used for play purposes. When the Central High School is eventually abandoned, Ferris Park could be completely used as an attractive open space rather than as a playfield.

Additional small park areas may be acquired in the future, but care must be exercised that not too many are placed in public ownership. The maintenance cost of these areas is usually high because of the character of development and their isolated nature. Since they are particularly desirable in residential districts, they should be primarily developed and maintained by property owners who derive benefits therefrom, rather than by the city at large.

CHAPTER SEVEN

Public Buildings

PART I—THE STATE CAPITOL DEVELOPMENT

INTRODUCTION

ADDITIONAL office facilities are now needed for the many persons who administer the State's activities and extensive improvements will be necessary in the future. It is impossible for any organization to function efficiently under conditions such as are found in the State offices in Lansing today. State departments should not be located in rented quarters scattered promiscuously through Lansing's business district, nor should the employees of one department be located in different buildings or in different parts of the same building. Crowded working conditions mean ineffective work by the employees and inconvenience to the visitor on State business. It is essential that a general program for the development of the State Capitol facilities be adopted at an early date so that the necessary improvements can be gradually carried out over a long period.

Existing Development

It is usually impractical to make a completely new development and consequently, any long range plan must consider present conditions as a basis from which to work. Plate Number 40 graphically shows the existing characteristics of the Capitol development and the surrounding area. The Capitol Building and the State Office Building have not outlived their usefulness, and must be an essential part of any present plan. The new Post Office is so situated that it must also be considered.

Capitol Building. The present Capitol has a dramatic and pleasing location. Its position, on the axis of two streets, is especially fortunate. Its greatest drawback is its proximity to the commercial development on Michigan and Capitol Avenues.

State Office Building. This building is too far removed from the State Capitol and at pres-

ent has a cramped setting. However, it represents a large investment, is still in good condition and must be made a part of any plan.

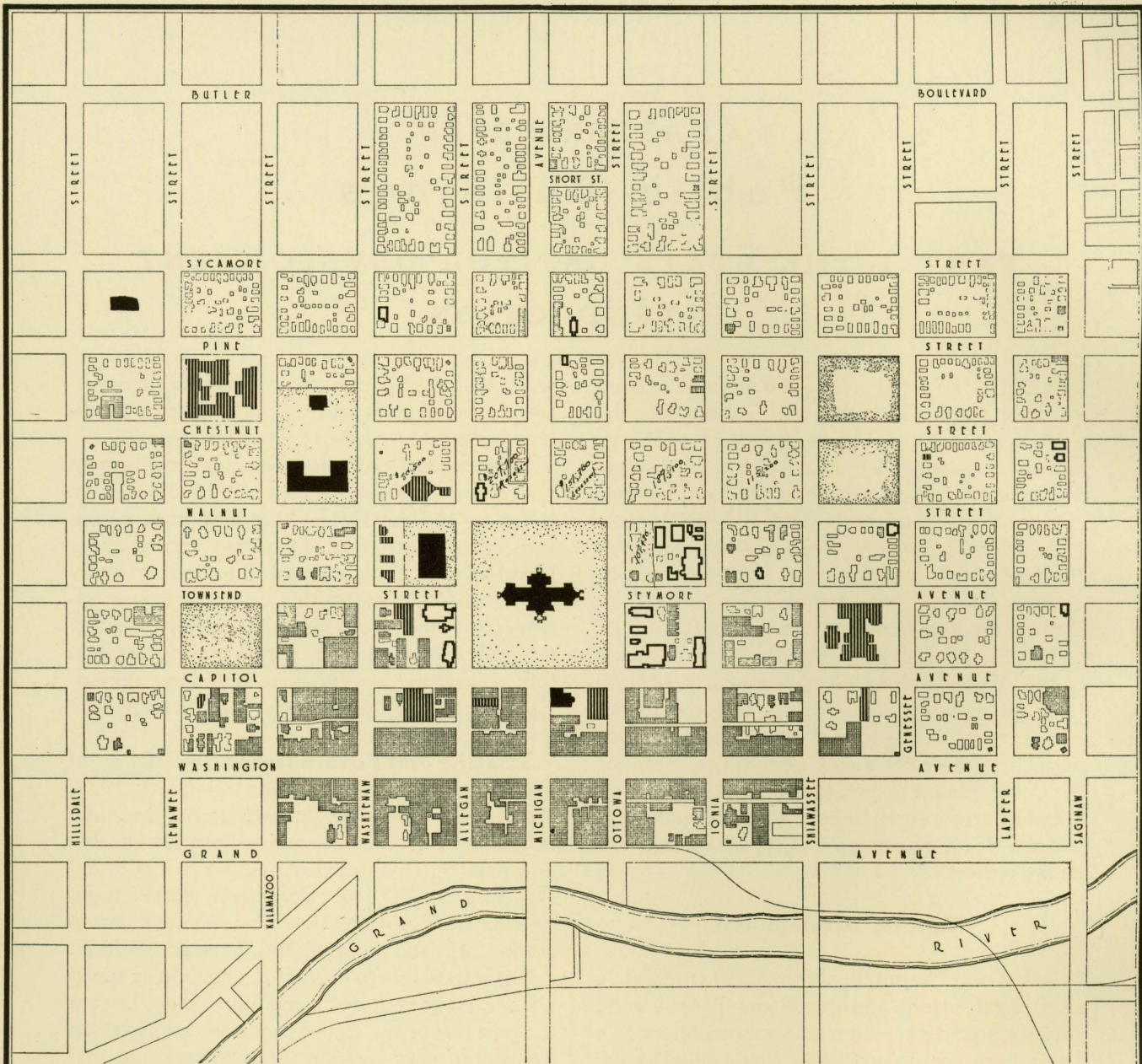
Existing Office Space. The state government has outgrown the space provided by the Capitol Building and the State Office Building. At the present time, one-third of the state office space is being rented. The Capitol Building is badly overcrowded. Parts of this building, never designed for offices, are being intensively used for this purpose. Certain departments in the State Office Building are crowded and some departments, such as the Highway Commission, are located in several buildings.

Existing and Future Needs. An analysis of existing office space was made in January, 1937. This survey shows the immediate need for approximately 168,569 square feet of usable office space. This can be visualized as a building 200 feet by 70 feet, seventeen stories high, or two buildings 200 feet by 70 feet, seven stories high and one building three stories high.

It is impossible to predict the amount of space needed by the State at some future date. During the past few years, state governments have been expanding very rapidly. It is improbable that the State government will remain stationary, and very probable that it will increase. Since it is impossible to accurately predict this increase, it is imperative that a flexible plan be prepared—a plan that can take care of all probable emergencies.

Factors to be Considered in Developing Future Capitol Facilities

There are several factors that will have an important influence upon the location, size and arrangement of the future Capitol development in Lansing. These are briefly summarized as follows:



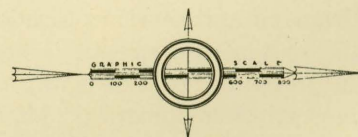
EXISTING DEVELOPMENT AROUND STATE CAPITOL LANSING MICHIGAN

LEGEND

- STATE & FEDERAL BUILDINGS
- PUBLIC & SEMI-PUBLIC BUILDINGS
- CHURCHES
- COMMERCIAL BUILDINGS
- APARTMENTS
- RESIDENCES
- PARKS

FINANCE COMMITTEE
STATE ADMINISTRATIVE BOARD
STATE OF MICHIGAN

CITY PLAN COMMISSION
CITY OF LANSING



HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNERS, LANDSCAPE ARCHITECTS
ST. LOUIS MISSOURI

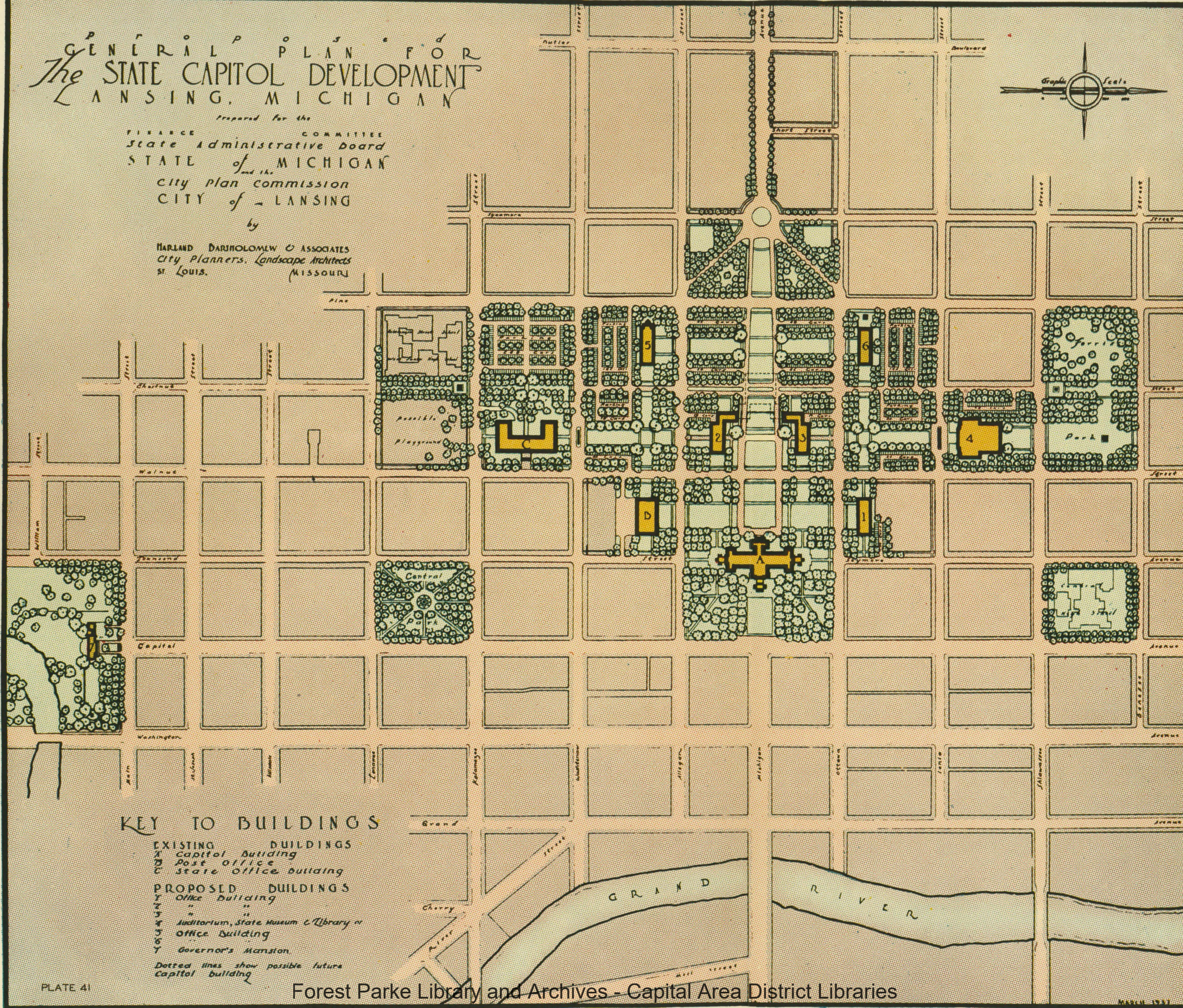
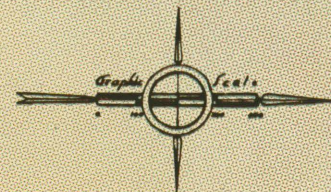
PLATE 40

MARCH 1937

GENERAL PLAN FOR The STATE CAPITOL DEVELOPMENT LANSING, MICHIGAN

Prepared for the
FINANCE COMMITTEE
State Administrative Board
STATE of MICHIGAN
and the
City Plan Commission
CITY of LANSING
by

HARLAND DARSHOLOMEW & ASSOCIATES
City Planners, Landscape Architects
St. Louis, MISSOURI



KEY TO BUILDINGS

- EXISTING BUILDINGS
 1 Capitol Building
 2 Post Office
 3 State Office Building
 PROPOSED BUILDINGS
 4 Office Building
 5 " " " " " "
 6 Auditorium, State Museum & Library or
 7 Office Building
 8 Governor's Mansion
 Dotted lines show possible future
 Capitol building

Scale of Development. The Capitol Development must adequately express the dignity and importance of the State of Michigan. It should be a governmental center that is representative of a great state. A large scale development such as is found in Washington, D. C., would be out of place, however, being too overwhelming for a city the size of Lansing, even if the State needed it or could afford it. The plan must be kept in scale with probable future requirements and with fixed physical conditions.

Relationship to City. The plan must be carefully coordinated with, and made a part of, the City Plan of the City of Lansing to the end that it may form an integral portion of the entire city. The relationship of the Capitol Development to the future business district and to logical use of property surrounding the development, as well as to the major streets providing access to the area, must be thoroughly considered. The development should also provide extensive parking facilities so as not to further congest the city streets.

Arrangement of Facilities. The Capitol Development must be designed to provide an adequate and efficient arrangement of office space for the state departments, present and future. It must offer to the people of the State an easy and convenient place to transact state business. It is necessary to have a long range program to accomplish this.

The organization of the State Government requires a fairly compact building group. Some divisions of the government, such as the Auditor General, and the Administrative Board, must have close contact with the Governor, and therefore should be either in the Capitol Building or very close to it. Others, such as the Highway and Conservation Commissions, are more or less complete units in themselves and, while they should be near the Capitol Building, they do not have to be in constant contact with it. The distance from the present Capitol Building to the State Office Building probably represents the maximum allowable distance, and only non-centralized departments should be located that far from the Capitol. Visitors will have business with several departments and should be able to contact them all readily.

Cost of Development. While it is realized that the taxpayer must be protected against unwarranted extravagance, there is frequently a

tendency to underestimate future needs, and the development of this plan will not disproportionately provide for the central physical facilities of a governmental organization that is now spending \$100,000,000 a year. The taxpayer will eventually gain more than is involved in the relatively small expenditure.

Proposed Plan

The proposed plan of development for the State Capitol is shown on Plate 41. It contemplates an expansion of the facilities into the blocks to the west of the Capitol Building. This plan is based on the retention of the Capitol Building as the focal point of the design and the creation of a strong east and west axis. The other buildings and open areas are subordinate to this conception.

New Office Space. Three new office buildings are proposed in proximity to the Capitol Building—one to balance the new Post Office Building, and two to the west. It is proposed that these last two buildings have an L-shaped plan in order that they can frame the view of the Capitol. When these three buildings have been erected, a nucleus on which to base further development will have been created. Also, they will amply take care of the existing needs for office space.

State Office Building. It is proposed to clear out the block between the present State Office Building and the new building to the west to bring the office building into the scheme and to provide for parking facilities. It is important that this be done reasonably soon. Once this building is tied into a **scheme** it will no longer give the appearance of having been dropped thoughtlessly into the city.

Auditorium. Balancing the State Office Building an auditorium is shown taking up the block to the south of Ferris Park. This could be built jointly by the city and the state. One of the greatest building needs in Lansing today is an adequate auditorium. It should be combined with the state library and museum, and could form a cultural center for the city and the state. Many state functions, such as inaugurations and conventions, could take place in this building. The City of Lansing itself will attract many conventions. As the capital city of a great state, with a central location, all that is needed is an ade-

quate building to make Lansing the convention city of Michigan.

Future Buildings. One block west of the Post Office and the new building proposed to balance it, two buildings are shown. These are planned to take care of future needs for non-centralized departments. Such a department as Social Security or Public Welfare, which is practically a complete entity in itself, could be well housed in these buildings. It has been suggested that the Michigan Supreme Court have a building of its own. One of these buildings would be ideal for that purpose.

New Streets. To the west of these buildings two diagonals are shown connecting Michigan Avenue with Ottawa and Allegan Streets. These connections are an integral part of the major street plan for Lansing. Michigan Avenue west of the Capitol is shown divided to give an appropriate approach to the area.

New Capitol Building. A new Capitol Building has been suggested for Michigan. The

present Capitol Building can give fair service for many years if not overcrowded. Through its long service it has acquired a sentimental and traditional value of considerable proportions. Because of this, it is shown undisturbed on the plan. In dotted lines, however, is shown a suggested location for an ultimate new Capitol when one is needed in the future.

Governor's Mansion. A careful survey was made in Lansing to determine a proper site for a Governor's Mansion. The site at the south end of Capitol Avenue was chosen because:

1. It is convenient to the Capitol and yet not close enough to get embroiled in the Capitol activities.
2. It would have a dramatic and dignified setting at the end of Capitol Avenue.
3. The site offers unusually good opportunities for a residence suitable for the Governor of a great state. Beautiful views would be obtained over the Grand River. The site is big enough and so located as to be protected against intrusion of undesirable neighbors.

PART II—THE CIVIC CENTER

ADVANTAGES OF A CIVIC CENTER

MANY advantages would be secured by a grouping of Lansing's public buildings. Public business would be facilitated to the convenience of citizens and officials. Economies in the acquisition of land will occur and much greater aesthetic and architectural effects can be realized.

There is always intercommunication between various city departments. The city problems dealt with by the Lansing city officials are inter-related. Accessibility of offices one to another will aid cooperation and save the time of city employees.

A grouping of buildings affords opportunities for a much greater architectural and aesthetic effect than the development of scattered sites, with no increase in cost. A civic center becomes an aesthetic asset and stimulates city pride.

Factors to be Considered in Selection of a Site

The following factors are those which must be considered in the choice of a civic center site. They represent the various manners in which such a center should relate to the city.

Centrality of Location. The civic center should be immediately adjacent to the business district. It must be readily accessible to great numbers of people and to office buildings, stores and hotels. A civic center should not occupy the heart of a business district, for it will then break up the continuity of business and tend to produce unwarranted traffic congestion.

Vehicular Access. The civic center should be easily accessible from all parts of the city. The business district is the principal focal point for all radial thoroughfares, and a civic center which is adjacent to this area will thus be convenient to the large number of persons driving autos and using the transit facilities.

Dominant Location. The civic center should occupy a prominent location. Topographic features such as predominating elevations and water areas, such as rivers, offer

opportunities for interesting and unusual architectural effect.

Influence on Surrounding Property. Public buildings are objectionable in areas of high commercial value. Upon a street devoted to intensive store development, the presence of a large public building constitutes an interruption to the shopping activities and retards the logical growth of commercial development. On the other hand, a civic center should not be located in a district devoted wholly to wholesale trade and light industrial uses of property, for a civic center so situated would always be out of place. It could never harmonize and adjust itself to its surroundings.

The ideal location for a civic center, therefore, is somewhere adjacent to the central business district where it will not interfere with high value commercial uses of property, but where it will encourage and foster an improved use of surrounding property not already fixed in character.

Semi-public uses such as churches and clubs and apartment buildings afford desirable surroundings for a civic center.

Cost of Site. Land cost is an important factor in the location of any civic center, and the most satisfactory location may be prohibited by excessively high land values. A reasonably high value, however, may be much more economical than a site of low cost which would have numerous other disadvantages, for a civic center must serve the city for an indefinite period of time.

These various factors must all be given proper consideration in the selection of a site for a civic center, but probably no location in any city could be found which would be ideal in every respect. It becomes a question, therefore, of balancing all of these factors and of selecting a site which most nearly satisfies all of them.

Influence of the State Capitol

Planning for a civic center in Lansing is complicated by the presence of the State Capitol. A

combined grouping of state and city buildings is not advisable because the city will never need buildings in scale with state buildings such as the State Capitol and the State Office Building, and it would probably be difficult to synchronize the time of the several improvements included within a large grouping so that a satisfactory development could be obtained during the various stages.

It is possible for the city to develop a civic center representative of the city as the State would develop a plan in harmony with its needs. This should be done in such a way that one would not compete with but would complement the other.

Influence of Fiscal Policy

The City of Lansing has for the past several years consistently followed a fiscal policy of minimizing city expenditures, and now possesses one of the lowest tax rates of any city in the United States. The importance of this can not be overestimated. This policy should be encouraged in the future, but certain expenditures must be made from time to time and the gradual development of a soundly planned civic center will eliminate costly mistakes and insure maximum returns from the nominal outlays.

Existing and Probable Future Building Needs

Existing Needs. Building facilities that Lansing will have to provide in the near future consists of:

Police and Jail Building. Lansing is badly in need of a new jail and adequate quarters for the police. The present jail is cramped and badly lighted. Jail facilities will never have to be very large as it is seldom that the city has occasion to keep over three or four people in jail. The location of a jail presents a problem in that such facilities may have a depreciatory effect on surroundings unless it can be placed on the top floor of a building and the architecture carefully handled.

At present the police quarters in the city hall and the police garage next to that building are totally inadequate. The garage location is especially unfortunate. It is very difficult to get cars in and out of the area behind the city hall.

These conditions require immediate remedial measures.

The above facilities could be conveniently arranged in one building. The police garage and public contact offices could be on the first floor. The police quarters and other offices and the municipal courts could occupy the second floor and the jail the third floor, providing a compact arrangement.

Because of the police garage, these facilities should be located on a major street, preferably near the junction of several major streets, convenient to the center of the business district.

An Auditorium. Lansing badly needs an adequate auditorium. Such a building should have a large hall to seat from 3,000 to 4,000 people, one smaller hall, and several rooms where small groups could meet. It will require a large site—approximately 200 feet by 300 feet. One of the proposed sites in the State Capitol Plan affords an excellent location for an auditorium.

City Hall. Most offices in the city hall have fairly ample space though some, such as the city engineer's office and the assessor's office, are crowded. Eliminating the police from the city hall will provide enough room to take care of over-crowding.

Should Lansing have a new city hall? The present building is old and the interior presents a slovenly appearance. On the other hand, it is very well built and will probably last for many years. It has a well designed exterior and is an interesting building for its style. Remodelling would help for a while but there is little question but that Lansing will need a new city hall within the next two decades.

Future Needs

City Offices. If a new building were erected for police and jail and the present departments arranged to use the existing police space, there would be about 200 square feet of usable office space for each employee and no over-crowding in the present city hall.

Police and Jail. At present a police and jail building three stories high and about 5,000 square feet in area would be adequate for the 79 police, 9 cars and 4 motorcycles. Based on the future population, the police department in 1960 will require about 30,000 square feet.

CIVIC CENTER LANSING MICHIGAN

City Plan
Commission

Note: Underground gar-
age area crosshatched.
Buildings demolish-
ed shown in dotted lines.

Morland Bartholomew & Associates
City Planning Consultants
St Louis, Missouri

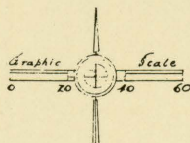
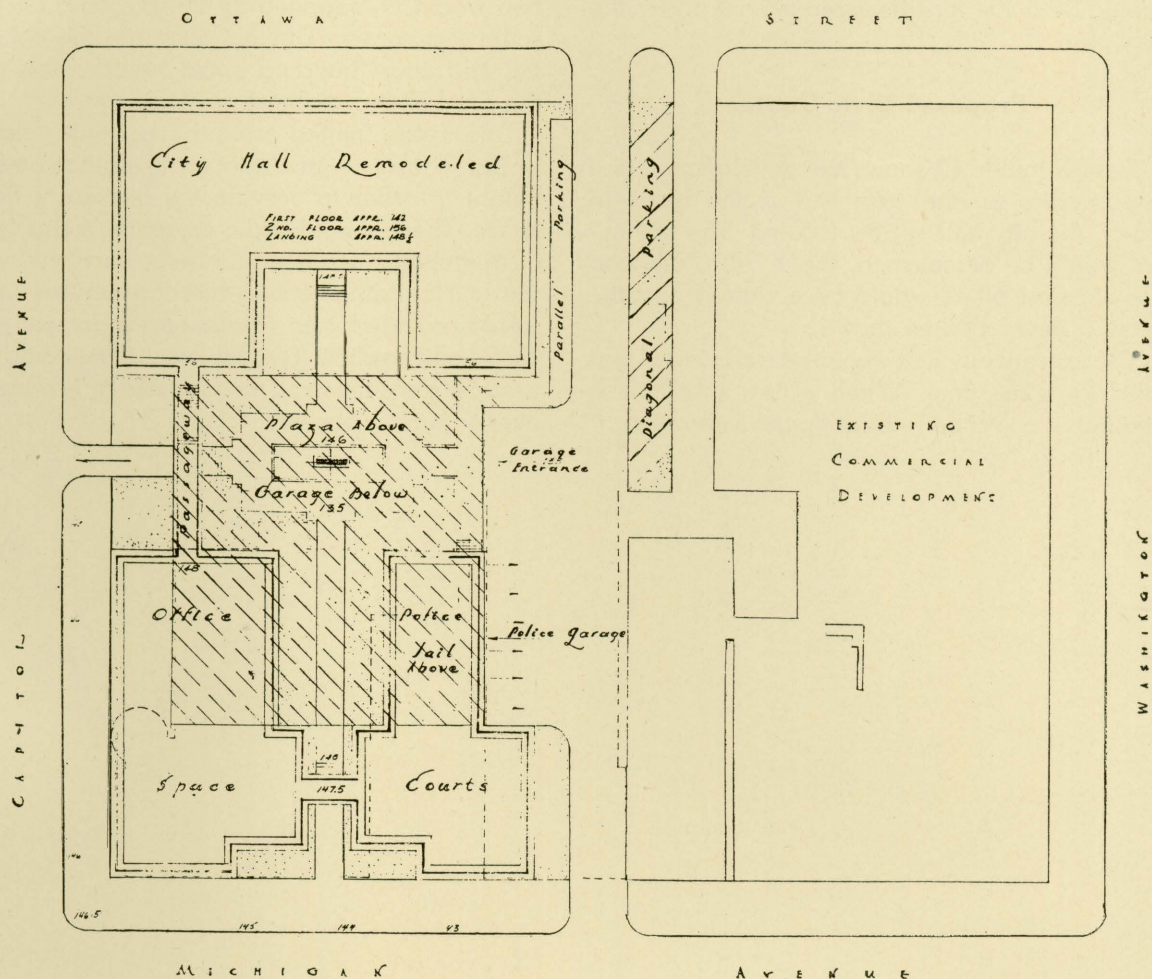


PLATE 42

REVISED SEPT. 1, 1937
MARCH 1937

Board of Water and Light. This board is now well housed but ultimately might be included in a civic center scheme.

Board of Education. This board will need new facilities in the next decade. It should be included in a civic center scheme.

County Office Space. Since the County government is located in another city, it is doubtful that a separate county building will ever be needed in Lansing. It will probably continue using city hall space and provision should be made for this arrangement under the new plan.

Proposed Civic Center

Plate Number 42 shows the development of a civic center on the west half of the block in which the city hall is now located. The present jail would be demolished, the Y. M. C. A. and the old post office would be acquired and the ground developed as shown.

The present city hall would be remodelled and used for some time. When a new city hall is needed, it could be re-built on the same site.

The police and jail building could be built at this time between the Y. M. C. A. and the old post office, by demolishing the frame wing of the latter building.

The existing topography makes possible the development of the large parking area for the use of city officials. This would be concealed from view by a plaza that could be embellished with a fountain and pool as shown. The future office space for city offices or for either or both of the Boards of Water and Light and of Education would be supplied by the building on the southwest corner. This building and the police, jail and court building could be connected to the city hall by means of passageways.

Due to the limited ground area, this scheme would require a building of six to eight stories in height in order to provide the necessary floor space. There should be no objection to this type of treatment since it would be in harmony with the surrounding commercial structures and would provide for an efficient arrangement and use of office space. The old Post Office could be used for some time and the plan easily developed over a number of years.

CHAPTER EIGHT

The Comprehensive Plan

THE comprehensive or master plan for the city of Lansing is shown on Plate Number 43. The plan shows the proposed future system of major streets, railroads, transit lines, schools and parks of various types, public buildings, and also shows the proposed major land use of all of the area included within the city and its urban environs. In brief, it is a composition of how all the major facilities of the future city should be developed. No differentiation is made between existing and proposed improvements since these were discussed in detail in the preceding sections.

This plan clearly shows the relationship between the many proposed improvements. For example, it indicates how the future transit lines are located upon major streets and the coordination between the parks and the school sites. These latter facilities provide a complete recreational system with a minimum of duplication. It will also be noted that the major streets divide the residential areas into cells or neighborhood units and that neighborhood shopping centers and schools or parks are so located as to serve each of the various cells most advantageously. Thus, each unit contains facilities for satisfactory urban living, yet they are so arranged that each unit is an integral part of the complete city.

This comprehensive plan provides a basis upon which the relative value of various proposed improvements can be judged according to need and also as to how they will fit into and become an integral part of the future city. Proposed improvements that do not generally conform to the plan and that can not be coordinated with the general scheme of development of the whole city, should not be undertaken. The several studies and plans included within the complete planning program must, of course, be referred to and considered when making a detailed study of any proposed improvement. For example, any proposed major street improvement can be studied by first referring to the comprehensive plan to see how it would coordinate with the street, transit, railroad, parks and school systems, and further reference should be made to the complete major street

study to determine the proper width and character of development for the street.

Execution of Plan

The preparation of the master plan is the important initial step, but its maximum advantage cannot be realized unless it is followed consistently. Experience has indicated that the only logical method of insuring that the plan will be followed is to give it an official status. This experience is aptly summarized in a publication of the National Resources Committee, entitled, "Our Cities," which states "City Planning bodies lack sufficient legal powers to guide effectively the physical, social, and economic structure of the community through the instrumentality of a comprehensive plan broadly construed. They are subject to uninformed official and public opinion which does not fully appreciate the great importance of community planning."

Fortunately, the State of Michigan has adopted a most excellent city planning act which provides a method for adoption and enforcement of a comprehensive plan. A copy of this act is included in the appendix of this report. The City of Lansing should take advantage of this act at the earliest possible date.

The following steps should be taken:

- (1) Adoption by the City Council of an ordinance creating an official planning commission in accordance with the provisions of the state law.
- (2) Appointment by the Mayor, with the approval of the City Council, of the members that will comprise the commission.
- (3) Organization of the commission by election of officers and adoption of by-laws governing its procedure.
- (4) Study by the commission of the various plans and recommendations contained in this report.

(Note: All of the work and recommendations contained in the present planning program

were thoroughly studied and several revisions made by the present unofficial commission. Since, however, certain additional members will have to be added to the official commission, it is necessary that the new members be thoroughly familiar with the program and be in accord with all plans and recommendations regarding proposed improvements.)

(5) The commission should hold a public hearing upon the complete plan, or separate hearings upon single phases of the plan such as the proposed major street system if these are to be adopted separately.

(6) The commission should make any changes or revisions in the plan or portions thereof, that are deemed advisable as a result of the public hearing.

(7) The plan, or a portion thereof, should be adopted officially by the commission by resolution.

(8) The plan or portion thereof should be consistently followed through reference of all proposed public improvements to the commission for a report before final action is taken authorizing such improvements.

It would be desirable for the official commission to adopt this complete report which would include not only the master plan but also the various plans and studies upon which it is based. Public hearings might be held upon each phase of the plan, but it would be most desirable if the complete plan could be adopted at one time.

Enforcement, or securing adherence to the plan, is not a difficult procedure. As improvements are proposed by the different municipal officials or by other legislative bodies, the plans and details of each improvement would be submitted to the planning commission for recommendations and report. If these improvements conform to the master plan, each project will be approved by the commission and work can be started immediately. If, however, the project does not conform to the proposals of the plan, the commission can determine whether it is more desirable than the proposals of the master plan or what changes and variations should be made to bring the improvement into conformity with the plan so that it can be properly coordinated and become an integral part of the future city. The commission should submit a brief report upon such variations and changes to the proposing body. In the majority of instances, the

legislative body that is responsible for the proposal will realize the value of such changes because of the advantages that will be obtained for the entire city, and will revise the project accordingly so that it can be started immediately. If, however, the proposing authority still feels that the project is necessary and better adapted to the future welfare of the city than the recommendations of the commission, it can proceed with the project by a two-thirds vote. Experience has shown that only a few such conditions would be encountered. The official planning commission should also consider and report upon any changes in the zoning ordinance before they are made, so that private development will also be properly coordinated with the general plan of the city.

Thus, the master plan for Lansing is a guide for its future development. It is not a rigid plan, but one which is flexible and which can be revised whenever deemed necessary by the commission. The legislative bodies are not deprived of their jurisdiction by an appointed group of citizens, but they must take cognizance of the general proposals and with the many advantages of the plan as a long time program, in addition to or in contrast with the merits of action based solely upon expediency.

An enlightened citizenry which is not only conversant with the plan but also realizes the advantages which can be obtained therefrom, will be a very important factor in seeing that the plan is consistently followed from year to year. If the citizens indicate that they are interested in having the city develop along the lines of the plan, the various officials and legislative bodies will be glad to cooperate.

Public Works Program

Throughout this report it has been emphasized that all of the improvements shown on the plan are not to be undertaken immediately, but rather that the plan is a guide or chart from which the relative merits of public improvements can be judged to best advantage. Cities and other legislative bodies are constantly making large expenditures for public improvements and the plan is particularly valuable in the selection of projects most needed from time to time. Public works usually cost considerable money and should last for many years. Their justification

and their cost can be determined most wisely if they are viewed as part of the plan of development of the whole city and not as individual, unrelated projects. Furthermore, by having a general guide for the development of the whole city, many unwise private developments will be prevented or discouraged. An example would be the construction of a large building on the right-of-way line of a narrow street which should eventually be widened. If the building were set back of the new right-of-way line, the city would be saved a large expenditure in the future, while the owner would be saved much unnecessary expense and inconvenience.

The plan also provides the only logical method of selecting public improvement programs which are not only adapted to the needs of the city but are also in scale with its financial ability. The plan will indicate the type and location of improvement that is most seriously needed and those which will afford the maximum

benefits to the largest number of citizens. It will also insure that the improvements can be kept in scale with the future needs rather than to be much more extensive than the population growth would justify.

The planning commission should prepare a five or ten year improvement program which would include those projects deemed most desirable for the general welfare of the city. Such programs, together with a report briefly describing the reasons for them, should be submitted to the proper legislative bodies and officials for their consideration and action. They should also be fully explained to the citizens to secure their interest and consideration. Such programs should be re-appraised and, if necessary, revised annually. Thus, a comprehensive city plan, with short term programs selected from it, is the only logical method of substituting economical and business-like procedure for haphazard municipal growth and administration.

APPENDIX

APPENDIX "A"

Public Acts 1931

(NO. 285)

AN ACT to provide for city and village planning; the creation, organization, powers and duties of planning commissions; the regulation and subdivision of land; and to provide penalties for violation of the provisions of this act.

The People of the State of Michigan enact:

DEFINITION OF TERMS. Section 1. For the purpose of this act certain terms are defined as provided in this section. Wherever appropriate the singular includes the plural and the plural includes the singular. "Municipality" or "municipal" includes or relates to cities, villages and other incorporated political subdivisions. "Mayor" means the chief executive of the municipality, whether the official designation of his office be mayor, city manager or otherwise. "Council" means the chief legislative body of the municipality. "Board of county auditors" or "county commissioners" means the chief administrative or legislative body or board of the county. The term "streets" includes streets, avenues, boulevards, roads, lanes, alleys, viaducts and other ways.

MUNICIPAL PLANNING COMMISSION; CREATION, NAME. Section 2. Any municipality is hereby authorized and empowered to make, adopt, amend, extend, add to, or carry out a municipal plan as provided in this act and create by ordinance a planning commission with the powers and duties herein set forth. The planning commission of a city shall be designated city planning or city plan commission; of a village, village planning or village plan commission and of any other municipality, such designation as its council may specify.

SAME; MEMBERS; NUMBER, QUALIFICATIONS; APPOINTMENT, COMPENSATION, TERM, REMOVAL, VACANCIES. Section 3. The commission shall, except as provided in the following paragraph, consist of nine members who shall represent, insofar as is possible, different professions or occupations, who shall be appointed by the mayor, if the mayor be an elective officer, otherwise by such officer as council may in the ordinance creating same designate as the appointing power, but such appointment shall always be subject to the approval by a majority vote of the members elect of the legislative body of such municipality. All members of the commission shall serve as such without compensation and shall hold no other municipal office, except that one of such members may be a member of the zoning board of adjustment or appeals. The term of each member shall be three years, except that three members of the first commission to be so appointed shall serve for the term of one year, three for a term of two years and three for a term of three years. All members shall hold office until their successors are

appointed. Members may, after a public hearing, be removed by the mayor for inefficiency, neglect of duty or malfeasance in office. If deemed desirable by the council such commission may consist of the mayor, one of the administrative officials of the municipality selected by the mayor, one member of council to be selected by it as members ex-officio, and six persons who shall be appointed by the mayor as is herein provided. All members of the commission shall serve as such without compensation and in this case also the appointed members shall hold no other municipal office except that one of such appointed members may be a member of the zoning board of adjustment or appeals. The terms of ex-officio members shall correspond to their respective official tenures except that the term of the administrative official selected by the mayor shall terminate with the term of the mayor selecting him. The term of each appointed member, where six are appointed, shall be three years or until his successor takes office, except that the respective terms of two of the members first appointed shall be for one year and two for two years. Members other than the member selected by council, may, after public hearing, be removed by the mayor for inefficiency, neglect of duty, or malfeasance in office. Council may for like cause remove the member selected by it. Vacancies occurring otherwise than through the expiration of term shall be filled for the unexpired term by the mayor in the case of members selected or appointed by him, by council in the case of the councilmanic member, and by the appointing power designated by council in municipalities in which the mayor is not an elective officer.

SAME; CHAIRMEN, MEETINGS, RULES, RECORDS. Section 4. The commission shall elect its chairman from amongst the appointed members and create and fill such other of its offices as it may determine. The term of chairman shall be one year, with eligibility for reelection. The commission shall hold at least one regular meeting in each month. It shall adopt rules for transaction of business and shall keep a record of its resolutions, transactions, findings, and determinations, which record shall be a public record.

SAME; EMPLOYEES, CONTRACTS FOR SPECIAL SERVICES, SOURCE AND LIMIT ON EXPENDITURES. Section 5. The commission may appoint such employees as it may deem necessary for its work, whose appointment, promotion, demotion and removal shall be subject to the same provisions of law as govern other corresponding civil employees of the municipality. The commission may also contract with city planners, engineers, architects, and other consultants for such services as it may require. The expenditures of the commission, exclusive of gifts, shall be within the amounts appropriated for the purpose

by council, which shall provide the funds, equipment, and accommodations necessary for the commission's work.

MASTER PLAN FOR PHYSICAL DEVELOPMENT OF MUNICIPALITY; ADOPTION, CONTENTS, PUBLICATION, ALTERATION. Section 6. It shall be the function and duty of the commission to make and adopt a master plan for the physical development of the municipality, including any areas outside of its boundaries which, in the commission's judgement, bear relation to the planning of such municipality. Such plan, with the accompanying maps, plats, charts, and descriptive matter shall show the commission's recommendations for the development of said territory, including among other things, the general location, character, and extent of streets, viaducts, subways, bridges, waterways, water fronts, boulevards, parkways, playgrounds and open spaces, the general location of public buildings and other public property, and the general location and extent of public utilities and terminals, whether publicly or privately owned or operated, for water, light, sanitation, transportation, communication, power, and other purposes; also the removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of any of the foregoing ways, grounds, open spaces, buildings, property, utilities or terminals; as well as a zoning plan for the control of the height, area, bulk, location, and use of buildings and premises. As the work of making the whole master plan progresses, the commission may from time to time adopt and publish a part or parts thereof, any such part to cover one or more major sections or divisions of the municipality or one or more of the aforesaid or other functional matters to be included in the plan. The commission may from time to time amend, extend, or add to the plan.

SAME; SURVEYS FOR BASIS, PURPOSE. Section 7. In the preparation of such plan the commission shall make careful and comprehensive surveys and studies of present conditions and future growth of the municipality and with due regard to its relation to the neighborhood or neighboring territory. The plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity, and general welfare, as well as efficiency and economy in the process of development; including among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements.

SAME; ADOPTION OF WHOLE OR PARTS BY RESOLUTION OF PLANNING COMMISSION, HEARING, CERTIFICATES TO COUNCIL AND REGISTER OF DEEDS. Section 8. The commission may adopt the plan as a whole by a single resolution or may by successive resolutions, adopt successive parts of the plan, said parts corresponding with major geographical sections or divisions of the municipality or with functional subdivisions of the subject matter

of the plan, and may adopt any amendment or extension thereof or addition thereto. Before the adoption of the plan or any such part, amendment, extension, or addition, the commission shall hold at least one public hearing thereon, notice of the time and place of which shall be given by one publication in a newspaper of general circulation in the municipality, and in the official gazette, if any, of the municipality. The adoption of the plan or any such part, or amendment, extension, or addition shall be by resolution of the commission carried by the affirmative votes of not less than six members of the commission. The resolution shall refer expressly to the maps and descriptive and other matter intended by the commission to form the whole or part of the plan, and the action taken shall be recorded on the map and plan and descriptive matter by the identifying signature of the chairman and/or secretary of the commission. An attested copy of the plan or part thereof shall be certified to council and to the county register of deeds.

PUBLIC WORKS; APPROVAL BY COMMISSION AND COUNCIL OR BODY HAVING JURISDICTION. Section 9. Whenever the commission shall have adopted the master plan of the municipality or of one or more major sections of districts thereof, no street, square, park, or other public way, ground, or open space, public building or structure, shall be constructed or authorized in the municipality or in such planned section and district until the location, character, and extent thereof shall have been submitted to and approved by the commission; PROVIDED, that in case of disapproval the commission shall communicate its reasons to council, which shall have the power to overrule such disapproval by a recorded vote of not less than two-thirds of its entire membership; PROVIDED, however, that if the public way, ground, space, building, structure, or utility be one the authorization or financing of which does not under the law or charter provisions governing same, fall within the province of the municipal council, then the submission to the planning commission shall be by the board, commission, or body having jurisdiction, and the planning commission's disapproval may be overruled by said board, commission, or body by a vote of not less than two-thirds of its membership. The failure of the commission to act within sixty days from and after the date of official submission to the commission shall be deemed approval.

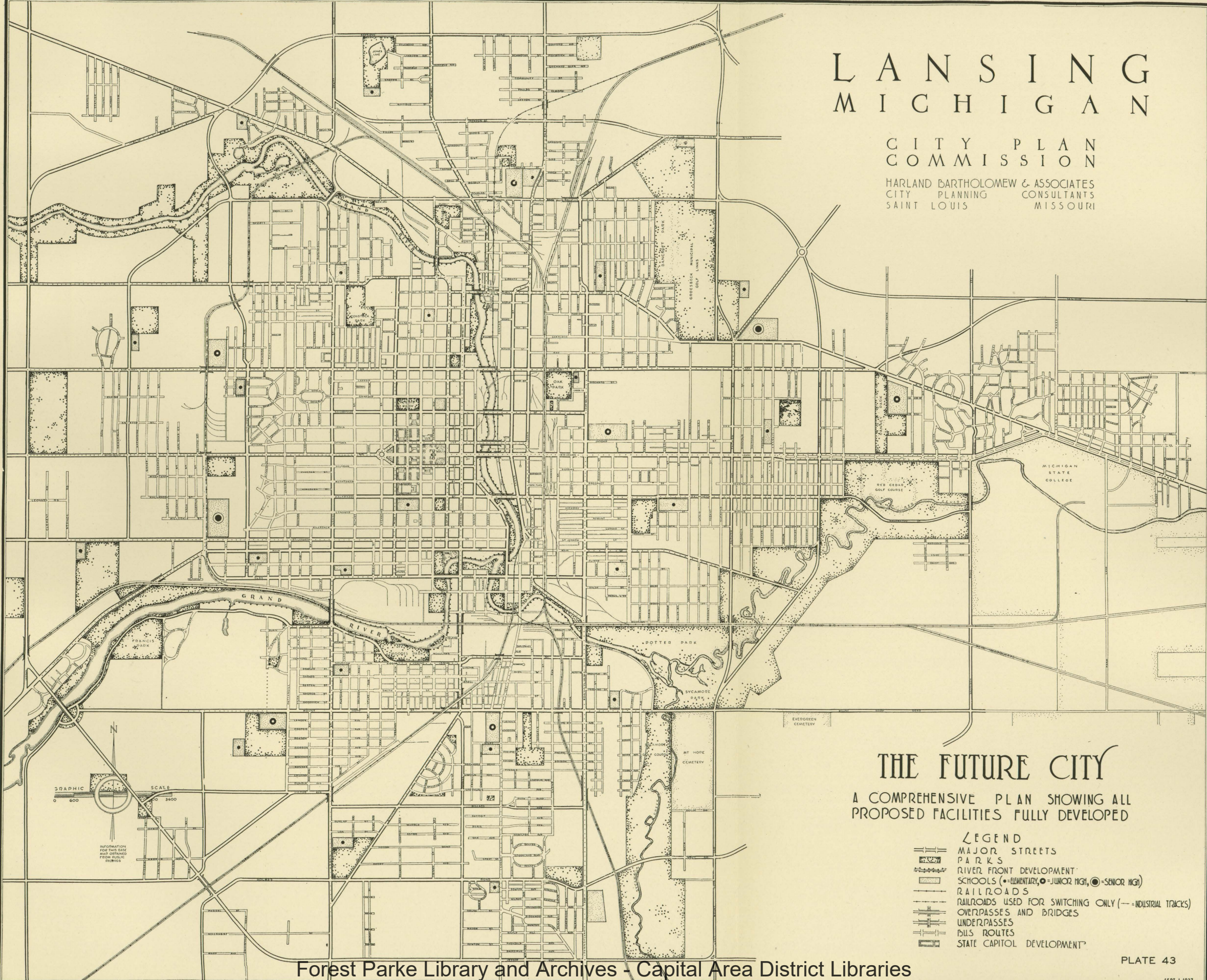
SAME; RESCISSION OF ACTION BY LEGISLATIVE BODY; PROCEDURE. Section 10. Whenever the council or legislative body of any municipality shall have ordered the opening, widening, or extension of any street, avenue or boulevard, or whenever the council or other legislative body shall have ordered that proceedings be instituted for the acquisition or enlargement of any part, playground, playfield or other public open space such resolution shall not be rescinded until after the matter has been referred back to the city planning commission for a report and until after a public hearing shall have been held. The council shall have power to overrule the recommendation of the city planning commission by a vote of not less than two-thirds of its entire membership.

MUNICIPAL PLANNING COMMISSION; PUBLICITY AND EDUCATION, RECOMMENDATIONS, GIFTS, CO-

LANSING MICHIGAN

CITY PLAN COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
SAINT LOUIS MISSOURI



THE FUTURE CITY

A COMPREHENSIVE PLAN SHOWING ALL
PROPOSED FACILITIES FULLY DEVELOPED

- LEGEND
- MAJOR STREETS
 - PARKS
 - RIVER, FRONT DEVELOPMENT
 - SCHOOLS (•=ELEMENTARY, ○=JUNIOR HIGH, ●=SENIOR HIGH)
 - RAILROADS
 - RAILROADS USED FOR SWITCHING ONLY (—=INDUSTRIAL TRACKS)
 - OVERPASSES AND BRIDGES
 - UNDERPASSES
 - BUS ROUTES
 - STATE CAPITOL DEVELOPMENT

OPERATION FROM PUBLIC OFFICIALS. Section 11. The commission shall have the power to promote public interest in and understanding of the plan and to that end may publish and distribute copies of the plan or of any report and may employ such other means of publicity and education as it may determine. Members of the commission, when duly authorized by the commission, may attend city planning conferences or meetings of city planning institutes, or hearings upon pending city planning legislation, and the commission may, by resolution spread upon its minutes, pay the reasonable traveling expenses incident to such attendance. The commission shall, from time to time, recommend to the appropriate public officials programs for public structures and improvements and for the financing thereof. It shall be part of its duties to consult and advise with public officials and agencies, public utility companies, civic, educational, professional, and other organizations, and with citizens with relation to the protecting or carrying out the plan. The commission shall have the right to accept and use gifts for the exercise of its functions. All public officials shall, upon request, furnish to the commission, within a reasonable time, such available information as it may require for its work. The commission, its members, officers and employees, in the performance of their functions, may enter upon any land and make examinations and surveys and place and maintain necessary monuments and marks thereon. In general, the commission shall have such powers as may be necessary to enable it to fulfill its functions, promote municipal planning, or carry out the purposes of this act.

SAME; SUCCESSION TO ZONING COMMISSION. Section 12. The commission shall have all powers heretofore granted by law to the zoning commission of the municipality, and, from and after the creation of a planning commission in such municipality, all powers and records of the zoning commission shall be transferred to the planning commission; PROVIDED HOWEVER, That in the event that the existing zoning commission shall be nearing the completion of its zoning plan, council may, by resolution, postpone the said transfer of the zoning commission's powers until the completion of such zoning plan; but such postponement shall not exceed a period of one year.

SAME; NECESSITY FOR APPROVAL OF PLATS; STREET SYSTEM. Section 13. Whenever planning commission shall have adopted that sort of a master plan relating to the major street system of the territory within its subdivision jurisdiction or part thereof, and shall have filed a certified copy of such plan in the office of the county register of deeds of the county in which such territory or part is located, then no plat of a subdivision of land within such territory or part shall be filed or recorded until it shall have been approved by such planning commission and such approval entered in writing on the plat by the chairman or secretary of the commission.

SAME; REGULATIONS GOVERNING SUBDIVISION OF LAND; BOND TO SECURE IMPROVEMENTS; PUBLICATION OF REGULATIONS. Section 14. Before exercising the powers referred to in section 13, the planning commission shall adopt regulations governing the sub-

division of land within its jurisdiction. Such regulations may provide for the proper arrangement of streets in relation to other existing or planned streets and to the master plan for adequate and convenient open spaces for traffic, utilities, access of fire-fighting apparatus, recreation, light and air, and for the avoidance of congestion of population, including minimum width and area of lots.

Such regulations may include provisions as to the extent to which streets and other ways shall be graded and improved and to which water and sewer and other utility mains, piping or other facilities shall be installed as a condition precedent to the approval of the plat. The regulations or practice of the commission may provide for a tentative approval of the plat previous to such installation; but any such tentative approval shall be revocable and shall not be entered on the plat. In lieu of the completion of such improvements and utilities prior to the final approval of the plat, the commission may accept a bond with surety to secure to the municipality the actual construction and installation of such improvements or utilities at a time and according to specifications fixed by or in accordance with the regulations of the commission. The municipality is hereby granted the power to enforce such bond by all appropriate legal and equitable remedies.

All such regulations shall be published as provided by law for the publication of ordinances, and before adoption, a public hearing shall be held thereon. A copy thereof shall be certified by the commission to the recorders of the counties in which the municipality and territory are located.

SAME; APPROVAL OR DISAPPROVAL OF PLATS, PROCEDURE, EFFECT. Section 15. The planning commission shall approve, modify or disapprove a plat within sixty days after the submission thereof to it; otherwise such plat shall be deemed to have been approved, and a certificate to that effect shall be issued by the commission on demand; PROVIDED HOWEVER, That the applicant for the commission's approval may waive this requirement and consent to an extension of such period. The ground of disapproval of any plat shall be stated upon the records of the commission. Any plat submitted to the commission shall contain the name and address of a person to whom notice of a hearing shall be sent; and no plat shall be acted on by the commission without affording a hearing thereon. Notice shall be sent to the said address by registered mail of the time and place of such hearing not less than five days before the date fixed therefor. Similar notice shall be mailed to the owners of land immediately adjoining the platted land, as their names appear upon the plats in the county auditor's office and their addresses appear in the directory of the municipality or on the tax records of the municipality or county. Every plat approved by the commission shall, by virtue of such approval, be deemed to be an amendment of or an addition to or a detail of the municipal plan and a part thereof. Approval of a plat shall not be deemed to constitute or effect an acceptance by the public of any street or other open space shown upon the plat. The planning commission may, from time to time, recommend to council amendments of the zoning ordinance or map or additions thereto to conform to the commission's recommendations for the zoning regulation of the territory comprised within approved subdivisions.

The commission shall have the power to agree with the applicant upon use, height, area or bulk requirements or restrictions governing buildings and premises within the subdivision, provided such requirements or restrictions do not authorize the violation of the then effective ordinance of the municipality. Such requirements or restrictions shall be stated upon the plat prior to the approval and recording thereof and shall have the same force of law and be enforceable in the same manner and with the same sanctions and penalties and subject to the same power of amendment or

repeal as though set out as a part of the zoning ordinance or map of the municipality.

SEVERING CLAUSE. Section 16. Sections of this act shall be deemed to be severable and should any section or provision of this act be declared by the court to be unconstitutionally invalid, the same shall not affect the validity of this act as a whole or any other part thereof, other than the part so declared to be unconstitutional or invalid.

APPROVED: June 6, 1931.

AMENDMENTS
TO
1938 REPORT UPON
THE COMPREHENSIVE CITY PLAN
LANSING, MICHIGAN

AS ADOPTED BY
LANSING CITY PLAN COMMISSION
DECEMBER 29, 1942

CITY PLAN COMMISSION

Victor G. Leyrer, Chairman	Claud C. Ludwig
Sam Street Hughes (Mayor)	Lucius D. Mills
Otto E. Eckert	Guy W. Oswald
Grace A. Leadley	Arthur E. Stoppel
C. Dwight Wood	

CITY COUNCIL SUB-COMMITTEE

Aldermen Ralph W. Crego, Ralph R. LeClear and Leo J. Smith

This is a transcript of the amendments and corrections approved by the action of the City Plan Commission which was created by act of the Lansing City Council on November 12, 1940 in accordance with Public Act No. 285 (1931) of the State of Michigan. Due to many changes, developments, and growth of the City of Lansing these corrections were deemed necessary to bring the 1938 Harland Bartholomew City Plan Report up to date. This supplement, together with the balance of the 1938 Bartholomew City Plan Report, constitutes the official City Plan as adopted by the City Plan Commission on December 29, 1942.

Evans E. Boucher, Secretary.

Chapter II — Page 25.

Present Traffic Flow.

Incorporate new traffic report with present street lay-out.

Chapter II — Page 27.

A. Radial Thoroughfares

Beech Street-Pennsylvania. This proposal to be changed as follows: "The connection between Beech Street and Pennsylvania Avenue and the connection between Larch Street and Beech Street be eliminated. That Larch Street be connected with South Cedar Street at a point south of Kalamazoo Street and that South Cedar Street be continued as a trunk line highway.

Saginaw Street. Amended to read, "Saginaw Street also gives good service as a radial. It should be widened to 80 feet for its entire length."

Cedar and Larch, Hall, East. This proposal to read as follows: "Cedar and Larch Streets should be 80 feet wide and should be connected between Liberty Street and North Grand River Avenue. North of this point the radial should be 100 feet wide. A new connection is now being made between Larch and East Street near the Thomas Street School."

West Saginaw. This recommendation is included with item 4, Saginaw Street.

Chapter II — Page 29.

Major Streets.

Verlinden, Everett, Sunset. This section to be eliminated and the following substituted in its place. "Clare Street should be extended directly north to the Delta River Road. This will ultimately require a bridge across the Grand River."

Victor-Willard. This recommendation to be amended to read as follows: "A cross town street is needed at the southern city limits. It is proposed that Willard Street be widened and extended to Pennsylvania Avenue on the East, and to Logan Street on the West. Victor Street should be widened and extended westward to the proposed by-pass."

Chapter II — Page 35.

Program of Improvements.

1. **The extension of Pennsylvania Avenue south.** It is imperative that this improvement be undertaken at an early date in order that traffic on U. S. highway No. 127 may have an additional route into Lansing as well as South Cedar Street. The connection to the south, including the viaduct over the Michigan Central Railway, has been designed by the County Highway Commission. None of this proposed route disturbs any existing large structures.

2. **Outer By-Pass.** The outer by-pass system should be started as soon as possible, as this should primarily be developed by the County Road Commission and by the State Highway Department. They should formulate a program of developments at an early date.

The extension and widening of Fairview Avenue is the only part of the by-pass system that passes through the city of Lansing. Its development has already been the subject of a preliminary survey by the City Engineer and its improvement should be coordinated with the program adopted by State and County Highway Departments.

4. Improvements in North Central Section. Three connections in the north central part of Lansing should be undertaken in the near future. Two of these, Pennsylvania Avenue to High Street and Capitol Avenue to North Grand River Avenue are shown in detail on Plate No. 19.

6. Widening of South Washington Avenue. As one of the important radials in the major street plan, Washington Avenue south of the Grand Trunk Railway should be widened to 100 feet. Plate 17 in the section on Buildings Lines shows the physical difficulties encountered.

Chapter III — Pages 39-41.

The Traffic Survey Committee be requested to bring up to date the tables on pages 39-41 as soon as they conveniently are able.

Chapter III — Plate 21.

The New York Central Railway has advised the Plan Commission that it will no longer use its tracks running southwest toward Dimondale, from a point south of Holmes Road and that all tracks south of that point are to be taken up. The New York Central Railway will maintain a service line for its present side track connections.

Chapter III — Page 40.

First sentence of the first paragraph reading as follows: "A slight raise of the tracks at Elm Street will permit an underpass to be constructed," **be stricken from the paragraph.**

The second paragraph dealing with the grade crossings at the Grand Trunk Railroad and South Washington Avenue, and South Cedar Street be amended as follows: "Thorough study should be given relative to merits of an underpass or an overpass at the time such project might be undertaken."

Chapter III — Page 40.

Grade Crossing Eliminations.

It is recommended that a thorough study be given to the feasibility of either an underpass or an overpass at East Saginaw and New York Central Railway tracks at the time such grade elimination project might be considered.

Chapter V. (Transit)

Recommendation was made that schedule cards be posted at all bus stops.

Chapter VI — Page 61.

The title of this Chapter is changed to read, "Recreation, Parks and Schools", and amended to read as follows:

CHAPTER SIX

RECREATION, PARKS AND SCHOOLS

INTRODUCTION

During the past quarter century recreation has grown steadily in public favor and occupies an important place today in the life of every forward looking American city.

Recreational facilities provide an opportunity for active and passive enjoyment of leisure time and contribute to the mental and physical well being of the public. Such facilities are found in the modern park system and in the normal development of the public school program.

While park development is almost completely recreational, the school program is primarily educational. However the need for accessible playgrounds for children and the strategic location of schools and school grounds has developed into the community use of school facilities for both education and recreation.

The time is past when school buildings are designed only for the children of the community and used six hours a day for five days a week. The modern school plant is used by the fathers and mothers as well as the children and is in use in the evenings as well as in the daytime, Saturdays, Sundays and the whole year round.

Parks are not only designed to preserve and enhance points of unusual beauty and such natural features as native woods, lakes, streams or places of historic interest but, through a system of neighborhood parks, playfields, and playgrounds, join with the school system in providing focal points for community activities.

Lansing has long recognized the advantages of park facilities. Since 1910, the increase in the public park areas has kept pace with the growth of population. The city has also made excellent progress in developing and maintaining the parks. The majority of the areas contain extensive improvements and several are lighted for night use. Many facilities for games and sports are available.

Park development in Lansing has generally followed a preconceived plan. Many of the recommendations of the early city plan are

now realities, and practically all of the existing park development can be included in the comprehensive recreational system. The recommendations of this chapter are coordinated with other portions of the city plan and the new areas can be developed where they will properly serve surrounding population, duplication of areas and facilities can be avoided and the park system can materially assist in securing a logical use of urban land.

Principles of a Comprehensive Recreational System

An adequate system of recreational facilities must be both extensive and diversified to serve the many requirements placed upon it. This section contains an analysis of the facilities that should be provided to serve all persons, which agency should be responsible for the development of each facility so that duplication will be entirely avoided, and a discussion of modern standards regarding the location and area of the several units comprising the complete system.

Plate Number 31 shows the classification of the total population into different groups having similar recreational requirements. A discussion of each group and the facilities that should be provided for them follows:

Small Children. Small children, below school age, are closely attached to the home. Adequate home grounds and small play lots in the interior of blocks are their most logical recreational areas. The provision of fresh air and free space for protected play is primarily a parental obligation.

Children of Elementary-School Age. Children of elementary-school age are under the guidance and control of educational authorities a considerable portion of the time. Recreation is becoming an integral part of the school curriculum and a large playground is needed at each elementary school. Since the entire city should be served by these facilities for the school year, it is only logical that they also be used by the children during the summer months. The School Board should thus be re-

sponsible for developing, maintaining and supervising all of the necessary recreational facilities for children of elementary-school age.

Youths. The youths are more interested in active games and sports and require larger play areas than the elementary school children. The majority of the youths spend a large portion of their time in school and every junior and senior high school should have an adequate field for play and sports. These fields should also be available during the summer, although a small portion of them, such as the football field, might be protected from intensive use.

There will also be many youths who are not in school and who will look more to the Park Board than to school officials for their play areas, and playfield facilities must be provided in several of the public park areas. Thus, both the School Board and the Park Board are responsible for the development of recreational facilities for the youths.

Adults. Adults are generally more interested in quiet, passive recreation than in organized and competitive sports. For them, there should be neighborhood parks, large outlying parks, pleasure drives, small ornamental areas, and community centers. The adult population that does enjoy tennis, baseball and similar activities, can utilize the facilities of the playfields. The Park Board is primarily responsible for providing the recreational facilities for the adults, although the use of school buildings and equipment is essential to a well balanced program.

There is, of course, certain intermingling of age uses in the different types of recreational areas. For example, all persons within the city will use the larger parks and some of the adults will use the playfields. The above mentioned facilities will, however, meet the dominant recreational requirements of all persons within the city with a minimum amount of duplication.

Plate Number 32 shows, in a general and diagrammatic way, the modern principles that should govern the location and development of the several units comprising a comprehensive recreational system.

Playgrounds. Playground location is amenable to the same formula recommended by educational authorities for the location of elementary schools. Each elementary school should

serve a homogeneous residential neighborhood approximately a mile square and should be as near as possible to the center of this district. The school site should comprise at least five acres and should be so developed that not less than three acres will be available for unobstructed play space. Obviously, schools should not be located adjacent to railroads, in industrial and commercial districts, nor on major streets.

Playfields. A playfield should be found at every junior and senior high school. Junior high schools usually serve an area included within a mile radius of the school, while senior high pupils can travel a much longer distance. To provide for an adequate playfield, every senior high school site should comprise from twenty to twenty-five acres and every junior high school from ten to fifteen acres. Certain neighborhood parks and large parks should also contain playfields. The factors that seriously affect the usefulness of playgrounds, such as major thoroughfares, do not interfere so much with the use of playfields which attract older boys and girls who are able to travel farther and cross such routes in safety.

Community Centers. Every residential neighborhood should have a building for its indoor social and recreational activities. The school buildings are the logical neighborhood centers and should be designed and made available for such out-of-school uses. They need gymnasiums, auditoriums, libraries, and similar features. Such facilities can do much to stimulate interest and pride in the neighborhood.

Neighborhood Parks. Neighborhood parks are intimate community recreational areas whose value is chiefly dependent upon accessibility. Oak Park and Moores Park are examples of such areas. A neighborhood park should be within walking distance of every person in Lansing—one-half mile is generally considered a fair radius of service.

Parks of this type must fit into the thickly built up interior of the city and therefore are limited as to size. An area of at least twenty acres is desirable, however. They must be compact, thoroughly serviceable areas designed to offer the maximum recreational advantages to those who live around them. They should contain informal plantings and open spaces as well as

facilities for active sports, such as tennis courts and baseball diamonds. The placement of such parks should be determined primarily by the boundaries of the district which it is to serve. Considerations of topography, wooded areas and the like should not be permitted to weigh too heavily against a central location.

Elementary schools can often be advantageously located in connection with neighborhood parks. This would provide an ideal neighborhood center that will do much toward unifying neighborhood life.

Large Parks. The modern city should be encircled by a series of large outlying parks. These areas, all connected by a system of pleasure drives, will offer a wholesome retreat from the noisy and monotonous man-made city. Topography should be a predominant factor in their location and their general treatment should be natural and informal. They should embrace and preserve for the city dweller, all types of native landscape around the city. Woods and hills, lakes, streams and valleys naturally suggest themselves as public reservations. The parkways connecting these areas should be elongated parks, varying between 200 and 500 feet in width with a roadway near the center. Moores River Drive is an example of the modern parkway.

Small Ornamental Areas. Within the more intensively developed portions of the city, there should be several small ornamental parks and open spaces. These should be rather formally treated and well maintained. They will do much to beautify what otherwise might be the ugly and monotonous part of the city. They provide areas for rest and passive recreation.

Existing Recreational Facilities

The location and extent of the areas that now provide recreational facilities in Lansing are shown on Plate Number 33. The plan shows both public parks and school grounds, as well as certain state and semi-public areas which provide opportunities for play and passive recreation.

At the present time the Lansing school plant consists of twenty-two elementary school buildings, three junior high schools, and two senior high schools. Besides these, an administration building and a school repair shop form part of the school plant. The elementary buildings are

not too large and are so located that no child has an unreasonable distance to go to reach his school. All of these buildings except six are modern, having been built or rebuilt within the past 25 years.

So far there are three junior high schools, one in the southern part of the city, one on the west side, and one on the east side. Lansing has two senior high schools, one on the east side and one in the central part of the city to serve the pupils from the west side.

The Lansing Board of Education owns a number of school sites which will be used when needed. One of these, five acres on East Mt. Hope Avenue, will have an elementary school building erected on it as soon as finances will permit, to serve this rapidly growing section.

The north part of the city needs a new junior high school to accommodate the children in that section of the city. The Board of Education owns a 22 acre site for that purpose on Thomas Street. This was a suburban section and was taken into the city some years ago. The Board bought the ground and erected a splendid modern elementary school building. As soon as finances will permit, a junior high school will be built which will make quite an ideal situation for the people of this section who are now a part of Lansing proper.

A 31 acre site was purchased some years ago on the west side of the city for a new senior high school to replace the old structure now in the central part of the city. A school is now in the process of construction on that site. This new \$1,500,000 structure will be modern in every detail with swimming pools, auditorium, playfields, athletic grounds, ball fields, and stadium. It is hoped to have this completed by 1943.

The present Central High School will be re-organized as a technical high school and will serve the pupils of the entire city who are interested in studying technical and vocational subjects. Due to its very central location from north to south as well as from east to west, it is ideally located for such a school. This building will continue to house the evening school as it does now, due to its convenient location for that purpose.

It has been the policy of the Lansing Board of Education for many years to secure sites for school purposes whenever new subdivisions

were opened and it appeared that there would be a shift of population in that direction. This made it possible to secure these sites at reasonable figures and prevented the necessity of later paying a high price and go to the cost of removing buildings already on the property.

Ten per cent of the area within the city is now used for park and playground purposes. The areas are also reasonably well distributed throughout the city. The older central portion of the city contains a number of small areas but none that are large enough to provide adequate neighborhood facilities. This is the most heavily populated section of the city, but because of the intensive use and high value of land, it is most difficult to secure adequate park areas in this district.

The large number of neighborhood parks and playfields warrant special mention. The importance of the service rendered by such areas has been emphasized and the Park Board has greatly benefited the citizens in securing such a large number. They are generally well distributed in the outer residential districts where they are convenient to the persons that use them. It will be noted, however, that more of these facilities are needed in the west central portion of the city, as well as in the outlying sections which are now being developed.

The existing large parks are in desirable locations near the outskirts of the present urban development. They occupy sites containing interesting topographical features, and it is extremely fortunate that they contain such a large amount of river frontage. Water areas are valuable features, and it is desirable that all, or at least the great majority, of the river banks in Lansing should be under public control. The large parks, especially those in the eastern portion of the city, form the nucleus of a framework of open areas encircling the urban areas. These encircling parks provide a green belt around the city which will assist in preventing an unbalanced population distribution and will also protect the residential areas.

Several of the semi-public areas, such as the Michigan State Campus, provide attractive open space, portions of which can be used by the general public for picnicking and other forms of passive recreation. The areas owned by the Board of Water and Light contain a large amount of river frontage and could even-

tually be developed so as to provide considerable recreational service.

Existing and Proposed Playgrounds

In accordance with modern standards, it is proposed that the recreation facilities for children of elementary-school age be provided on school grounds adjoining the elementary school buildings. These should be developed, maintained and supervised by the School Board. The recommendations of this section are concerned with the location and size of these playgrounds rather than with the type of school buildings erected thereon, or with the details of educational practices. The age and condition of some of the structures will, however, have a bearing upon the eventual abandonment of some school sites.

For a number of years the Lansing Board of Education and the City Park Board have co-operated in conducting summer playgrounds for the children and adults of the city. The Board of Education has opened 10 school grounds and the Park Board has furnished 10 parks or playfields. Each of these has been supervised by two trained directors during the summer and materials for craft work, games and all necessary equipment has been supplied. Two swimming pools, one at Eastern High, and another at West Junior High are operated by the School Board, and one pool at Moores Park is operated by the Department of Recreation.

Existing Elementary School Grounds. Details of the existing elementary school sites are contained in Table Number 10. While several of the existing sites provide a play space of more than 100 square feet per child, much of this area is of such size and shape that a well organized play area cannot be obtained. Furthermore, the enrollment will increase at many of these schools and the existing play area will soon become congested. Only two of the twenty-two elementary schools within the city now have a site of the standard size (5 acres). Many of the existing sites must be enlarged and larger sites must be acquired in the future, if the playgrounds are to provide adequate service.

Many of the older school sites, which were purchased many years ago before play areas were considered essential, are in built up sections of the city or in areas that are now being

DATA REGARDING EXISTING ELEMENTARY SCHOOLS

SCHOOL	YEAR BUILDING ERECTED	ENROLLMENT SEPTEMBER 1942	AREA OF SITE (acres)	AVAILABLE PLAY SPACE (Square feet)	PLAY AREA PER CHILD (Square feet)
Allen Street	1926	685	1.78	52,258	76.0
Barnes Avenue	1920	408	2.04	86,600	212.0
Bingham Street	1909	182	.60	18,506	102.0
Cedar Street	1918	292	.83	25,465	87.0
Christiancy	1914	339	1.77	64,002	188.0
Foster Avenue	1918	547	1.24	35,650	65.0
Genesee Street	1912	260	1.18	39,280	151.0
Grand River Avenue.....	1912	255	1.30	17,361	68.0
High Street	1924	377	2.01	77,032	204.0
Holmes Street	1923	403	1.65	53,580	133.0
Kalamazoo Street	1923	497	3.03	30,000	60.0
Larch Street	1888	196	.75	22,092	112.0
Lincoln Street	1937	181		82,700	456.0
Main Street	1929	242	2.38	97,420	401.0
Maplewood	1918	414	2.50	99,697	240.0
Michigan Avenue	1915	238	.93	28,640	120.0
Moore Park	1936	280	1.14	44,082	157.0
Oak Park	1916	393	.73	5,050	13.0
Thomas Street	1937	388	2.09	891,226	2,290.0
Verlinden Avenue	1930	254	3.32		497.0
Walnut Street	1937	388	1.50	46,690	120.0
Willow Street	1937	400	6.52	254,191	635.0

absorbed by commerce and industry and expansion of the properties must await favorable buying opportunities. Some of the school sites are too close together, others are now located on major streets where traffic hazards must be considered.

Plate Number 34 shows a comparison of some of the older schools with sites that have been more recently acquired. The School Board is to be commended for its more recent acquisitions in conformity with modern standards.

Proposed Playground Facilities. The present enrollment at the elementary public schools represents about 11 per cent of the total population. If this ratio continues in the future, there would eventually be about 16,000 children using the public play areas. The improvements proposed to serve this population with the necessary playground facilities are shown on Plate Number 35.

The plan also shows the estimated distribution of the total future population. Half-mile circles around the future sites indicate that practically all children would be within reasonable distance of a playground. It will be noted that considerable future population will be beyond the present city limits, and that several new sites are proposed to serve this future growth. In the few locations where a walk of more than one-half mile would be necessary, the unserved area is so small that it would be uneconomical to provide an additional play-

ground. Existing sites were used wherever possible, which partly accounts for the slightly uneven distribution of sites in certain sections. A discussion of the several recommendations follows.

Existing Sites of Adequate Size

Thomas Street School. This school has an excellent site of ample size and is well located to serve the northern portion of the city. Area is also available for the development of a new Junior High on this site and a fine educational center should result.

Willow Street School. This school has an excellently located site of ample size.

Existing Site on Mount Hope. This is another new site containing an area of desirable size. It will serve a large population in the southeastern portion of the city and will accommodate many of the children which now use the Christiancy School.

The J. W. Sexton High School site, located on the corner of Michigan Avenue and McPherson Street, consists of 31 acres and is adequate in size for the splendid structure that is now being constructed and for needed playfields, ball grounds, and stadium.

Verlinden Avenue School. The acquisition of the block south of the present school site and the park site which adjoins it on the west will provide adequate play space in this section of the city, where about one-third of the area served will be used for industrial purposes.

Sites To Be Enlarged

Allen Street School. The site should include the remainder of the block on which the present building is located and will benefit from the development of Hunter's Park to the west and Stabler Playgrounds to the south.

Barnes Avenue School. This school ground should be enlarged from 2.04 acres to 3.8 acres, by acquiring the remainder of the block. While the proposed enlargement

is now occupied by several residences, the additional area is essential to provide play facilities for the surrounding residential development. This site with Moores Park and Quentin Park will serve a large area within the southwestern portion of the city.

Foster Avenue School. The site is well located to serve a large residential development in the eastern portion of the city. The school grounds should be enlarged by acquiring the remainder of the block to the north.

Grand River Avenue School. A large residential district in the northeastern portion of the city can be served by this playground. The present site is too small and the remainder of the block could be acquired, making a total area of 6.3 acres. Eventually, a new school should be built at the north end of the site to remove the children from immediate contact with traffic on Grand River Avenue.

Holmes Street School. This site is well located to serve the residential area between the Grand Trunk Railroad and the Pere Marquette Railroad. The present site is too small and should at least include the remainder of the block on which it stands.

Kalamazoo Street School. One of the most heavily populated sections of the city is served by this playground. The district will always have a large population because of the apartment zoning and since it contains no neighborhood parks, a large playground is most essential. The entire block to the east should be acquired. Chestnut Street could then be vacated between Kalamazoo and Lenawee and a site of 6.8 acres would be available for school and playground purposes.

Lincoln School. The recent extension of this site has improved the property but it should be enlarged so as to include all of the block. The enlarged area will provide playgrounds and a community center for this section of the city.

Main Street School. The school is reasonably well located to serve the southwest portion of the city but it is expected the school census in this area will increase and require additional land to the west.

Maplewood School. This location will serve a large residential area in the south central portion of the city. The site should be enlarged to four acres by the acquisition of the remainder of the block to the north. This additional area will also connect this playground with a proposed enlargement of the Walter French Junior High School and permit the development of a fine educational and play center in this section of the city.

Oak Park School. At the present time, this site serves only a small area which is, however, intensively developed. It will never have a much larger enrollment unless the site of the Industrial School is sold and subdivided. While it might eventually be abandoned, it will be needed for a long time and the site should be enlarged by acquiring three lots to the north on Saginaw Street and the two lots to the south. This will give a site of 1.29 acres and a small portion in the northeast corner of Oak Park could continue to be used for playground purposes.

Walnut Street School. This site in the north central portion of the city will also serve a large population. More playground space is needed and the remainder of the block should be acquired, which would give a total area of three

acres. This area is inadequate, but no additional ground is available and some of the children will probably have to use a portion of Comstock Park during out-of-school hours.

Schools Which May Be Abandoned

Bingham Street School. A large portion of the area served by this school will eventually be absorbed by business and the remaining portions can be served by the Allen Street School, Holmes Street School, and the Oak Park School. The site is very small and the building is twenty-eight years old.

Cedar Street School. This school should be abandoned in the near future since the area it serves is entirely duplicated by four other sites. The site contains only 0.43 acre and any extensions would be both difficult and expensive. The newest portion of the building is twenty years old.

Christianity School. The location of this school has become very unsatisfactory because of the industrial growth and railroad development in this section. All of the area now served by this school could be taken care of on the East Mt. Hope Avenue site.

Genesee Street School. The enrollment in this building has declined steadily over a period of years. The same thing is true of the Michigan Avenue School. Undoubtedly the time is not far off when the pupils of the two schools can be accommodated in one or the other of these buildings and one school can be abandoned.

High Street School. This school may eventually be abandoned because its area of service is limited. It is also located in close proximity to the Michigan Central Railroad and may eventually be surrounded by industry.

Larch Street School. This school should be abandoned because the site is inadequate, the building fifty years old, and the area served is duplicated by the Oak Park School. Also, a large portion of the area surrounding this site is used by industry and commerce.

Michigan Avenue School. The service area of this school is duplicated by the Verlinden Avenue School, the Main Street School and the Kalamazoo Street School. The site is small and poorly located, adjoining the intersection of two important thoroughfares.

Moores Park School. The radius of service of this school is mostly duplicated by the Barnes Avenue and the Maplewood Schools. The building is thirty years old and the site is very small. It should be abandoned in the near future.

New Sites Beyond the City Limits

West of the city limits and north of Saginaw. This site will eventually serve a large residential district lying between Michigan Avenue and the Grand River. A site of about three or more acres adjoining a proposed neighborhood park should be acquired.

It should be noted that a playground site containing less than five acres is often recommended when developed in connection with a neighborhood park. If, however, the park development should be abandoned or delayed, the School Board should acquire not less than five acres.

West of the city limits and south of St. Joseph Street. This site will serve a similar residential district lying south of Michigan Avenue. It should also adjoin proposed

neighborhood park and an area of not less than three acres should be acquired.

West of Kelsey and Pattengill. This district will ultimately require playground facilities, although the residential area should never be intensively developed. The site should contain not less than three acres since it will adjoin a proposed neighborhood park.

Logan Street and Loa Street. This site will serve the fast growing section south of the present city limits. At least three acres should be acquired adjoining the proposed neighborhood park.

Site Near Jones Lake. A playground of about three acres adjoining a proposed neighborhood park will be necessary to serve the northwestern portion of the city.

Pine Lake Road east of the City Limits. This proposed site will also adjoin a park area.

East of Groesbeck Golf Course. A considerable population will eventually be found in this area and an excellent site can be developed in the proposed location.

Enlarged Sites Beyond the City Limits

Everett School. This site is well located to serve the extreme southern portion of the future city and should eventually be enlarged to about five acres.

Horsebrook School. It is unfortunate that this school adjoins a main highway, for it is otherwise well located. The site should be enlarged before the surrounding vacant area is absorbed.

The above proposals are in scale with future needs and can be developed gradually over a period of twenty-five years or more. Twenty-five years ago, Lansing had only five of the present twenty-two schools. The proposed future development is less extensive than the development which occurred during the past twenty-five years. Also, since the population will increase slowly, if at all, after 1960, practically no further capital investments will be necessary.

The importance of enlarging many of the existing small sites cannot be over-emphasized. If vacant lots are acquired as quickly as possible and if other properties are secured whenever the buildings become obsolete, no excessive expenditure will be necessary. Sale of sites recommended to be abandoned will provide funds for acquisitions.

Existing and Proposed Playfields

The youth of the city require playfields and athletic grounds for their recreational activities. The majority of these areas should adjoin high schools. Junior high schools should contain about fifteen acres and senior high school sites should contain from twenty to twenty-five acres.

Existing Playfields at Schools

The site of the new J. W. Sexton High School should provide room for an exceptionally fine playfield which is needed in the west section of the city. The site at Eastern High School is adequate but has to be shared with Pattengill Junior High School, thus curtailing its full use. The site at Walter French approaches standard and the area provided at Thomas Street is unusually good and will serve the northern part of the city to advantage. The situation at West Junior High where the Kalamazoo Elementary School shares the three acre site is difficult because of the built up surroundings.

Proposed System of Playfields. It is estimated that there will be about 5,400 senior high school pupils and about 6,500 junior high school pupils in Lansing, eventually. Two schools should be adequate to accommodate the senior high students since youths of this age can travel a considerable distance and can use the transit facilities to reach the schools. At least five junior high schools will be needed to accommodate the future population. Practically all of the youths within the city would be within one mile of the proposed sites. The proposed location of the playfields at both the senior and junior highs are shown on Plate Number 36. A brief discussion of the proposed improvements follows.

Playfields at Senior High Schools

New J. W. Sexton High School. This building is located at the corner of Michigan Avenue and McPherson Street. It is beautifully situated on a 31 acre site, giving room for playfields, ball fields, and stadium. This high school will conveniently serve all the future urban population in the western part of the city.

Eastern High School. If land now occupied by the Boys Vocational School, which adjoins the school property in the north, could be obtained both the High School and the Junior High could be greatly improved by acquiring additional acreage for playfields.

Junior High Schools

Pattengill Junior High School. With the acquisition of new land from the Boys Vocational School grounds, adequate play space would be available. It is well located to serve the large population in the east central portion of the city.

Thomas Street School. The new Junior High School that the School Board proposes to build on the Thomas Street site will be well located to serve the northern portion of the city. The site is adequate for playfield facilities.

Walter French School. It is proposed that the Walter

French School site be extended to the south to include an additional area of about 1.7 acres. The present playfield is somewhat cramped and the enlarged area will be necessary to serve the future increase in population in the southern portion of the city.

West Junior High School. If at some future time, the block to the east of the present school site could be obtained, the present congestion could be relieved and full use made of the property.

Proposed School Site in Southwest Portion of City. A new Junior High school is proposed at Mt. Hope Avenue and Pattengill Avenue. The site should contain about 12 acres. This school and Walter French School would serve the entire southern portion of the city.

Playfields at Parks. In addition to the above playfields adjoining the future junior and senior high schools, several of the existing and proposed parks will also contain playfield facilities. The approximate location of some of these are shown on Plate Number 36. It is evident that all youths could eventually be within reasonable access of playfield facilities.

Existing and Proposed Neighborhood Parks

Neighborhood parks should afford recreational opportunities to all persons within the surrounding neighborhoods. Such areas should provide facilities for both passive and active recreation rather than be a barren sports field. They should contain landscaped lawns, wooded areas, walks and shelters, as well as space for the play of small children and areas for games and sports. The area of the parks should not be less than fifteen acres and preferably should be more than twenty acres.

Existing Neighborhood Parks. Lansing is unusually fortunate in possessing six neighborhood parks, at least three of which are well located and developed and afford excellent service. All of the existing areas can eventually be improved so as to provide the necessary facilities and can become an integral part of a future system of neighborhood parks. The extensive use made of the present neighborhood parks indicates the necessity of providing more of these areas throughout the city. As the proposed playgrounds and playfields adjoining the schools are gradually developed, a larger portion of the existing parks can be devoted to lawns, planting and similar treatment.

Following is a brief discussion of the existing parks.

Oak Park. This area is a good example of a neighborhood park. While it contains numerous playareas, a large space is devoted to trees and lawns. Due to the absence

of other similar areas in the eastern portion of the city, this park is unduly congested. Additional neighborhood parks are needed to relieve the overcrowding.

Moore's Park. The useful functions performed by neighborhood parks are emphasized by the popularity of Moore's Park. It is estimated that at least 40,000 persons use this area annually. The park contains a swimming pool, picnic area, playground, two tennis courts, lawns and planting. It is also a good example of the manner in which a neighborhood park should be developed and maintained.

Comstock Park. This new park has been developed with two splendid softball fields which are flooded in winter for skating, play equipment, rock gardens, coasting hill, a miniature amphitheatre and a modern rest house which is built on two levels and serves the skaters in winter. The park is flood lighted for winter use. The park fills a real need and is strategically placed to serve the north central portion of the city.

Scott Field. This area, while termed a playfield, in reality fulfills many of the functions of a neighborhood park. It is fully developed with tennis courts, softball fields and a playground. It is primarily used for sports and occasionally part of it has been used as an outdoor theater.

Ranney Park. This park now performs more of the functions of a playfield than a neighborhood park, attracting people from all over the city. However, when a complete system of neighborhood parks has been developed, this area should not be so congested and can serve the surrounding neighborhood. It contains nine tennis courts and one softball field, and only one-half of the area is developed.

Reasoner Park. Though small, this site should also be considered as a neighborhood park. Its area of three and one-half acres should be increased so as to afford more service. It now contains two tennis courts, a playground, softball field, and a small picnic area.

Quentin Park. This park, while limited in acreage, is so planned that every inch of ground is available for use. Two softball fields which are flooded and lighted for winter skating, a coasting hill, playgrounds, two tennis courts, an outdoor theatre, rock gardens and plantings, and a heated building for year around use make this little park a gem in this rapidly developing residential area. The park serves the southwest section of the city.

Hunter Park. This tract of land, recommended in the previous city plan, is being used as a dump until the huge gravel pit excavations are leveled out and the land made ready for use. The property is in an ideal location to serve a large residential section and in conjunction with the playfield given the city in memory of Milbourne Stabler a couple of blocks to the south, will provide park and recreation facilities to this built up southeast area which has not been previously served.

Proposed Neighborhood Parks. Many of the present developed sections of Lansing need neighborhood parks and new sites should be acquired in the outlying areas that will eventually be urbanized.

Plate Number 37 shows the proposed system

of neighborhood parks and the probable distribution of the future population. Most of the future city eventually will be within one-half mile of a neighborhood park. The only sections not included within this radius are a small area near the central business district and an area west of Bancroft Park. This latter park can, however, contain many of the facilities necessary to serve the surrounding neighborhood. The impracticability of now securing park areas in the older and intensively developed areas emphasizes the importance of acquiring park sites in advance of high land values. A discussion of the recommendations for future development follows.

Site North of Thomas Street School. Immediately north of the Thomas Street School, it is proposed that a tract of about ten acres be acquired to serve the northern portion of the city. The proposed site contains an attractive wooded area and should be developed in an informal, natural manner. This park area together with the playfield and playground that should be developed on the school site will give an ideal community center.

Additions to Reasoner Park. An additional area of about four acres should be acquired around this park. The block east of the park between Russell and Howard Street should be acquired and one block of Capitol Avenue should be vacated. Small strips west and south of the park should also be acquired. With the proposed enlargements, the new boundaries of the park would be Seager Street on the west and North Street on the south.

Additions to Comstock Park. This site should be enlarged by acquiring nine acres to the north of the present boundary. The proposed extension is now part of the School for the Blind. This additional land would provide a total park area of twenty-one acres and would connect the neighborhood park with the Willow Street School. The land to be acquired is now used only for garden purposes and contains no buildings.

Site at West St. Joseph and West City Limits. To serve the extreme west central portion of the city, a neighborhood park of at least 11 acres should be acquired north of West St. Joseph Street and east of the Belt Line Railroad at the west city limits. This area contains some very beautiful woodlands adjacent to the new high school site and sufficient open area for lawns, plantings and play purposes. The proposed park could be used in conjunction with the school area and eliminate the need of a larger area of a needless duplication of facilities and increase the service of both properties.

Additions to Scott Field. It is proposed that several acres be added along the northern boundary of Scott Field. These enlargements are necessary to serve the congested neighborhood south of the central business district and to provide public control over the river banks.

Additions to Clifford Park. This section of the city seriously needs neighborhood park facilities. The present park is undeveloped and contains only 2.75 acres. It is proposed that the park be enlarged to seventeen acres as

shown on the plan. The proposed additions are well suited for park purposes.

Site at Southeast Corner of Harton and Hayford. A park of twenty-six acres is proposed south of Harton Street and east of Hayford Street, to serve the population in the southeastern part of the city. Over one-half of this land is now owned by the Board of Water and Electric Light Commission.

To serve the ultimate future growth of Lansing, six new neighborhood parks, an addition to Ranney Park and a Park development in an existing large park are proposed outside the city limits.

Site North of Michigan Avenue. A neighborhood park of about twenty acres is proposed near the Dryer Farm Road, to serve the population north of Michigan Avenue, south of the Grand River and between the western city limits and County Line Road. This site is to be developed in conjunction with an elementary school ground and would provide an ideal neighborhood park.

Site at Holmes Road and Logan. North of Holmes Road and between Logan and Washington, a neighborhood park is proposed in conjunction with a suggested playground. About five acres of the proposed site is now well wooded and the remainder could easily be developed for lawn and play purposes.

Site at Holmes Road and Cedarbrook. At the east end of Holmes Road there is now an unusually attractive wooded ravine comprising about fifteen acres that has been recently deeded to the county. This should be developed with recreational facilities and will serve a rapidly growing section of the city.

Additions to Ranney Park. An additional area of about nine acres will eventually be needed in connection with the present park.

Site Near North Grand River and Wood Street. It is proposed that a neighborhood park be developed on the existing twenty-six acres of park property which lies northeast of North Grand River Avenue and Wood Street. This site would be developed in conjunction with the proposed high school and proposed playground.

Site East of Frederick Avenue. In conjunction with a proposed park site along the by-pass route, an additional area of about five acres is proposed at the end of Frederick Avenue to provide neighborhood park facilities in the extreme northeastern portion of the future urban area.

Site Near Jones Lake. In conjunction with a proposed park around Jones Lake and an elementary playground, a six acre neighborhood park should be eventually developed at the end of Carter Street to serve the extreme northwestern portion of the future urban area.

Existing and Proposed Large Parks

The preceding recommendations are concerned with recreational areas within all of the developed portions of the future city. These areas are primarily local units which would be used by the surrounding residents rather than by citizens from all sections of the city.

An additional type of park area is necessary to provide a comprehensive and balanced system of recreational facilities. This is the large park, containing an area of 100 acres or more. These are usually located on the outskirts of the city, include the more outstanding scenic areas, and should be developed so as to preserve the natural beauty of the site. They usually contain picnicking and camping facilities, golf courses, bathing beaches, and other similar development.

There should be a large number of these areas distributed around the city and the several units should be connected by parkways. These pleasure drives should have a wide and properly landscaped right-of-way which should be 300 or more feet in width. Wherever possible, connecting parkways should be extended within the developed portion of the city, especially along the river banks.

Existing Large Parks. Lansing now has many attractive and well developed large parks. The large attendance at many of these areas, such as Potter Park, is indicative of their value and popularity. The areas that are developed with golf courses are extremely well used as evidenced by the 71,980 persons who used the three golf courses in 1936. The popularity of this game will undoubtedly continue and, as the population increases, additional courses will have to be provided. A brief description of the existing parks and the facilities which they provide follows.

Bancroft Park. This park contains forty-two acres of attractive woodlands and rugged areas. It also has one baseball field, a softball field, playground, skating rink and numerous picnicking facilities. This area and the Groesbeck Golf Course really form one unit and provide facilities that are of interest to all persons.

Francis Park. This is a very attractive area comprising sixty acres in the southwest portion of the city. It is undeveloped, but the wooded sections, the undulating topography, and its proximity to the Grand River afford possibilities for an outstanding development.

Groesbeck Golf Course. This area is one of the outstanding municipal golf courses of the Middle West. In 1941, it had an attendance of 19,000 persons. An improved approach to, and a better parking space within this area would be desirable. The present unused section lying immediately north of Green Street might be developed as an informal garden.

Potter Park. This is one of the most attractive and intensively used parks in Lansing. In 1941, it had an estimated attendance of more than 90,000 persons. It

comprises 101 acres and many diversified improvements including a zoo, playfield, large playground, tennis courts, extensive picnicking facilities, and attractively landscaped areas.

Shubel Park and Sycamore Golf Course. This area lies immediately south of Potter Park. The park area comprises fifty-nine acres and the golf course an additional thirty-nine acres. The park area is undeveloped except for a large playfield, while the smaller tract comprises a nine hole golf course. In 1940, the golf course had an attendance of 30,000 persons.

Tourist Camp and Red Cedar Golf Course. This site is located on East Michigan and comprises seventy-five acres. The area is intensively developed, containing a municipal baseball field, a well equipped tourist camp and a golf course. This latter development had an attendance of 38,000 persons in 1940.

Waverly Hills. This newly acquired park land containing 120 acres of rolling terrain and located east of Waverly Road on the Eaton-Ingham county line, extends from Saginaw Street to Michigan Avenue and provides a much needed park and recreational area west of the city proper. An exceedingly attractive nine hole golf course has been constructed with a club house, storage building and caretaker's home on the Saginaw Street frontage and provisions for ball fields, tennis and picnics are planned for the Michigan Avenue frontage. The property balances out similar developments in the north, south and east sections of the city.

Proposed Large Parks. The proposed large park system that should eventually be developed is shown on Plate Number 38. It will be noted that practically all of the sites are in the outlying areas and use rugged and wooded property that is not well adapted for residential purposes. The plate also shows the existing and proposed neighborhood parks and indicates all of the major areas which should eventually be under the control of the Park Board. The proposed system comprises approximately 1,700 acres and the sites are well distributed in and around the future urban development. It is evident that all citizens would be well served by this comprehensive system. It would not be unreasonable for the County to provide some assistance in the acquisition and development of these areas since many people from all sections of the County will use them.

A brief discussion of the detailed recommendations for new sites follows.

Area South of Sycamore Golf Course. Immediately south of the present Sycamore Golf Course there is a beautifully wooded tract lying along both sides of Sycamore Creek. The southern portion of this area is comparatively rugged and the entire site abounds in scenic beauty. This entire site should be reserved for public

use. The only development necessary would be foot trails, a minimum amount of roads and parking areas, and picnicking facilities. This site would assist in guiding population growth into proper locations and prevent scattering of new growth in the southeastern part of the city.

Area Between Potter Park and Red Cedar Golf Course.

It is recommended that considerable land be acquired along Red Cedar River between these two existing parks. The majority of the land is quite low and subject to over-flowing. It is entirely unsuitable for residential development and should be placed under public control. Flood hazards can eventually be controlled either by straightening the channel and constructing dikes or by some other method. The area is well wooded and would make an excellent naturalistic park even though flooded at certain periods. A portion of this proposed tract is now owned by the Board of Water and Light Commissioners, and the County and Township might assist in the acquisition and improvement of this area because of the flood problems which extend beyond the confines of the city.

Enlargement of Red Cedar Golf Course. It is proposed that the golf course be extended eastward to the western end of Prospect Avenue and that beyond this addition, a strip of about 400 feet on the north side of the Red Cedar River be extended eastward to Harrison Road. This would provide public control over both banks of the Red Cedar River from the eastern edge of the Michigan State College to the western boundary of Potter Park.

Additions to Bancroft Park. Considerable property lying between Bancroft and the Pine Lake Road should be acquired. Much of this land is low and marshy and unsuited for residential purposes. A small but attractive lake could be developed in the low lying portions of this property. This lake together with an informal treatment of the surrounding area, including paths and picnicking facilities, should provide an attractive and useful development.

Sites Along Northern Portion of By-Pass. Two comparatively small areas should be acquired and developed by the state whenever the by-pass is constructed. These areas would be primarily useful as areas where tourists could enjoy brief rests amid pleasant surroundings. The area around Jones Lake is an especially attractive site while the area east of East Street contains some beautiful woodlands.

Development Along Grand River in North Part of City. A large park area is proposed along the Grand River in this general location. The area would have a rather irregular boundary which could be adjusted to wooded sections and to areas containing other interesting topographical features. The value of this proposed development cannot be over-emphasized. It would give public control over a large section of both banks of the river and would provide for the development of a water front somewhat similar to the park development along the Red Cedar in the southeastern part of the city.

River Front Area West of County Line Road. The city now owns an attractive river front park which is being developed into a camp and comprises about 52 acres. The city should acquire the woods and river frontage to

the east of the present park and make a connection with the Eaton-Ingham county line road. The proposed frontage would preserve the beautifully wooded banks of the Grand River at this point and would provide a natural hiking trail to the camp and furnish needed access to the bus transportation service on the County Line road.

River Frontage Opposite Francis Park. A large portion of the river frontage opposite Francis Park should be acquired and developed for park purposes. This area should extend from the present western city limits at least as far as County Line Road. The area contains some interesting topography and could be attractively developed in an informal manner. Foot paths and picnicking facilities should comprise the major improvements.

Parkways. Three major parkways are proposed within and surrounding the city of Lansing. One will be the existing Moores River Drive which should eventually be extended further to the southwest along the river.

The second major parkway development would be along the Grand River in the north-western section of the city. Detailed studies of topographical conditions would be necessary to determine just where this route should be located. It should, however, connect with one of the major streets, possibly beginning at the proposed extension of Logan across Grand River and continuing west along the river to the proposed park development west of the County Line Road. This could be an outstanding improvement and would be similar to the existing Moores River Drive in the southwestern portion of the city.

A most important parkway improvement would be the outer belt route which would completely encircle the city and connect practically all of the existing and proposed large parks. While this route was proposed as one of the major portions of the future major street system, and as such would carry large volumes of both pleasure and commercial vehicles, it should eventually be developed to have park-like characteristics. The route should have a right-of-way of not less than 200 feet in width and should preferably be 300 feet wide. This wide right-of-way should be attractively landscaped and the development adjoining the route should be properly controlled. The abutting property should have no access to the drive except at a few intersections.

The route is located at the edge of the future urban development and, if properly developed, would assist in preventing an unnecessary scattering of future urban growth. A few small

areas along this route are recommended to be acquired for park purposes as indicated on the plan. These sites contain attractive wooded areas which should be preserved for future use and enjoyment. They would greatly enhance the park-like treatment of the route.

River Front Development and Small Parks

River Front Development. The city now owns a large amount of the property along the river banks. The value of public ownership is evident from the existing development, and should be extended in the future so that all of the river front area within the city will either be publicly owned or under some form of public control. The proposed large park and parkway development outlined in the preceding section will insure much of this future ownership. Certain additional acquisitions, especially in the central portion of the city, will have to be made.

The proposed development along the Grand River might be placed in three major classifications, briefly described as follows:

(1) In the northern portion of the city a strip of land on the north side of the river between Turner and the Belt Line Railroad, should be acquired by the Park Board. Much of this area contains steep bluffs and has little value for residential or industrial development. The area on the west side of the Grand River extending north from Madison Avenue should also be publicly acquired and developed. On the south side of the Grand River, in this general section of the city, the banks might be controlled by easements which would permit the development of a walk and appropriate planting.

(2) In the central portion of the city, roughly between Madison on the north and Lenawee on the south, the river bank should be protected by easements. Plate Number 39 shows the suggested treatment in these areas. The foot paths, wall and planting would insure a very desirable treatment of the river frontage and would provide for public access even in the industrial areas. Many beautiful views of the river and bridges could be obtained by the pedestrians along these walks.

The development within the commercial district offers possibilities of securing an unusual

treatment of shopping facilities that will attract many persons. Owners of private property adjoining the river should cooperate with the city in order to construct a promenade along the river. The value of their property could be materially increased by this development. It might also be possible to provide considerable planting along the promenade even in the most congested portion of the city. An outstanding development would result from such improvements.

(3) The proposed river front development in the southern portion of the city is generally similar to the proposed development in the northern portion. Both acquisition and control by easements would be necessary. So much of the property is already owned that it should not be difficult to acquire the remaining frontage between Moores Park and Potter Park. It is especially necessary that considerable land be acquired at the junction of the Grand and the Red Cedar rivers. Practically all of this area is well adapted for park purposes and would provide a useful and attractive development.

Small Parks. The city now owns several small parks and open spaces such as Central and Durant Parks, as well as small triangular areas at street intersections. A number of these areas are attractively developed and afford useful services. This is especially true of the areas in the central portion of the city where it is practically impossible to acquire any additional park sites. They should always be preserved as ornamental and well landscaped open spaces rather than be used for play purposes. When the Central High School is eventually abandoned, Ferris Park could be completely used as an attractive open space rather than as a playfield.

Additional small park areas may be acquired in the future, but care must be exercised that not too many are placed in public ownership. The maintenance cost of these areas is usually high because of the character of development and their isolated nature. Since they are particularly desirable in residential districts, they should be primarily developed and maintained by property owners who derive benefits therefrom, rather than by the city at large.

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